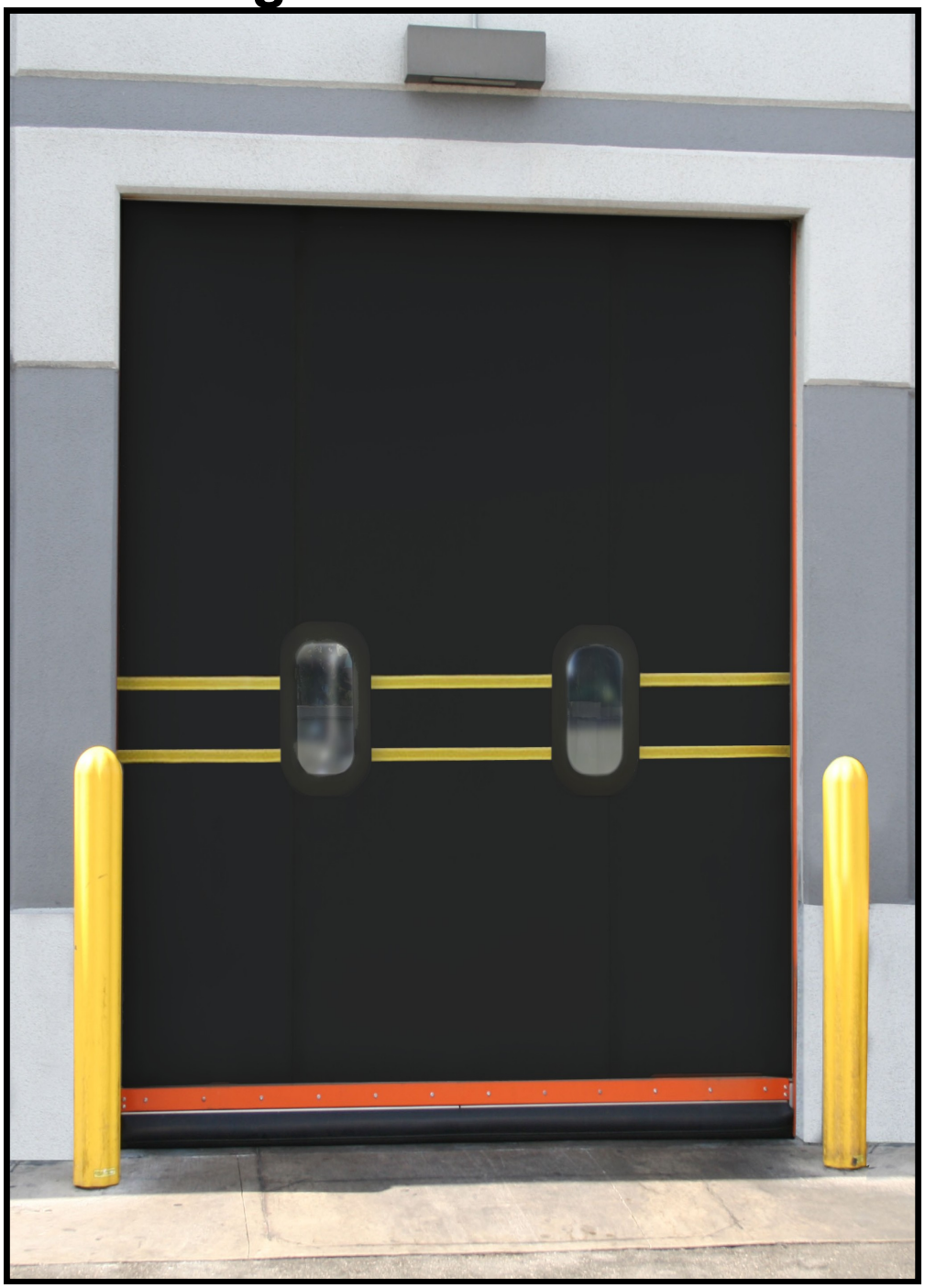
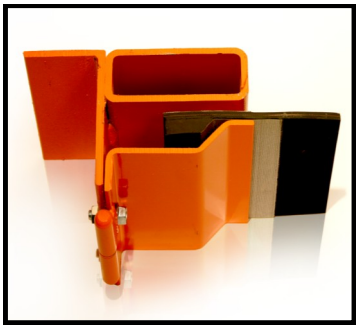
P/N:001448
Rev: 4/22/2010
Version 4.20

UltraTough M&I w/ UltraSmart Installation





Doors are UltraRugged, UltraReliable, UltraAffordable.

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1080 Maritime Drive, Port Washington, WI 53074 - 975-A Old Norcross Road, Lawrenceville, Georgia 30046
262-268-9885 www.albanydoors.com

INTRODUCTION

The contents of this manual are designed to help you install UltraTough M&I high speed doors. **DO NOT begin to install the high speed door unless you have read through the instructions in this manual.**

The safety alert symbol is used to identify safety information about hazards that can result in personal injury. A signal word (DANGER, WARNING, or CAUTION) is used with the safety alert symbol to indicate the likelihood and the potential severity of injury. In addition, a hazard symbol may be used to represent the type of hazard.

DANGER indicates a hazard that, if not avoided, will result in death or serious injury.

WARNING indicates a hazard that, if not avoided, could result in death or serious injury.

CAUTION indicates a hazard that, if not avoided, might result in minor or moderate injury.

CAUTION, when used without the alert symbol, indicates a situation that could result in damage to the door.

NOTICE is used to inform you of a method, reference, or procedure that could assist with specific operations or procedures.

Other symbols that may be used in this manual are:

Lock Out / Tag Out

Crushing

Fire

Shock

Read Manual

ALBANY DOOR SYSTEMS CONTACT INFORMATION

Port Washington, WI

1080 Maritime Drive, Port Washington, WI 53074

Phone: 262-268-9885 Fax: 262-268-9895

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Delivery and Inspection

⚠ WARNING

Improper installation of anchoring devices or installation into aged or unsound concrete block, or other wall material may result in premature wear, product failure, property damage, or serious personal injury.

⚠ WARNING

Lock-Out Tag-out all electrical power supplied to the door before making any electrical installations or connections. Also Lock-out Tag-out any equipment near the installation site if that equipment may be inadvertently operated into the area used to assemble and install the door. Failure to properly deenergize electrical circuits and disable equipment during installation and/or maintenance could result in death or serious injury.

⚠ WARNING

Use proper lifting equipment and techniques. Properly secure all loads. Failure to properly secure all lifting loads could result in death or serious injury.

Secure the work area so that persons not working directly on the installation do not enter the work area.

SITE PREPARATION

Electrical Supply

Qualified electrician must make all electrical mountings and connections in accordance with all applicable regulating body(s) electrical codes and standards. The control box is equipped with a 3-phase AC fused disconnect.

Door Opening

1. Are the door jambs and support wall structurally sound providing a flat surface for the side columns to mount against?
2. Check the width and height of the door opening and verify the measurements against the dimensions of the door.
3. Is the opening square? Plumb?
4. Is the floor level across the opening?

Make all necessary structural repairs and improvements to provide a "yes" answer to each of the questions above.

TOOLS AND MATERIALS REQUIRED

Personnel

- Two people to install the door
- One person qualified to operate forklift, hoist, or crane
- One electrician to install and connect the control
- panel and all electrical wiring

Tools

- Assorted wrenches
- Tape measure
- Carpenter's square
- Level (4ft minimum recommended)
- Lifting device (fork lift, hoist, crane)
- Lifting Straps
- 2 ladders or personnel lifts (tall enough to reach above the door head)
- Other tools as needed for the type of anchoring chosen

Materials

- Anchors appropriate for the type of wall the door and accessories are to be installed onto. Albany Door Systems recommends through-bolting doors whenever possible.
- Wire as specified on the electrical schematic
- Electrical supplies needed to comply with all regulating body electrical codes and standards.

UNPACKING AND PREPARING

1. Inspect and unpack the components. Report any damage immediately to Albany Door Systems at (262)-268-9885. Refer to the serial number tag located on the door side frame.
2. DO NOT cut the banding which holds the door in a roll until instructed to do so in a later procedure.

CAUTION

The door panel and roll assembly could be damaged. Use evenly spaced padded supports to prevent rips, tears, or bending of the roll assembly. Failure to protect the roll assembly could result in damage to the door.

Installation: Standard UltraTough Doors

PREPARATION

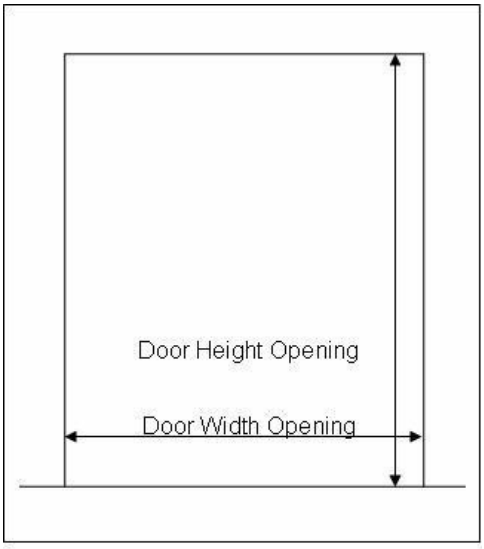
NOTICE

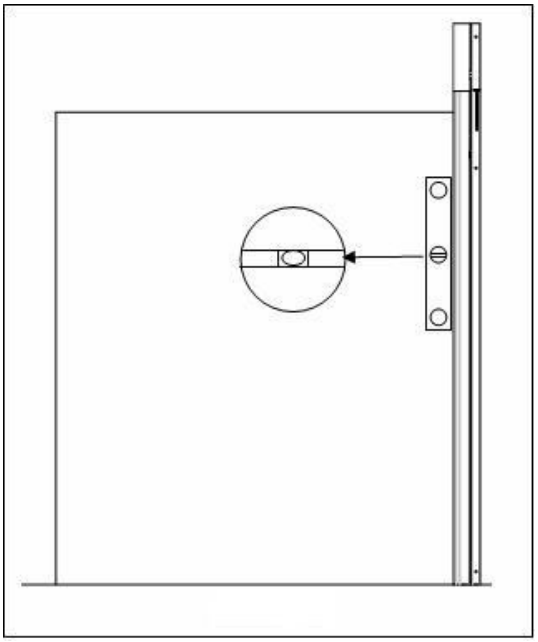
Some wall surfaces are not ideal and may require shimming to keep the side frames square to each other. Proper installation will help eliminate photocell misalignment problems and curtain binding issues.

Setting up the side frame

The door is usually to be installed centered over the door opening. Also at this time establish a level line or mark on each side of the door opening (must be marked in order to establish a reference height in case of an uneven floor). This can be accomplished using either a water level or an optical measuring device. Measuring down from this mark to the floor on each side of the door opening will tell you if your floor is level at the points of installation for each of the side frames.

(Example: If on side A, you measure from your level mark to the floor and it 46" and side B it measures 47". This measurement tells you that Side A should be installed first right on the floor and that Side B will have to be raised 1" in order to be level with Side A). See figure 1.

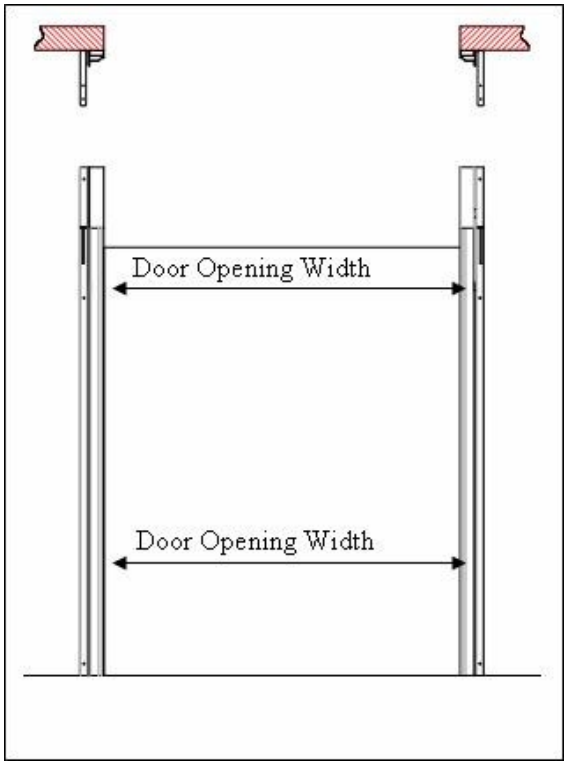




Once you have established which side frame to install first, fully plumb and level it as shown. Centering the door in the doorway opening will allow for minor variations in the existing door opening.

NOTICE

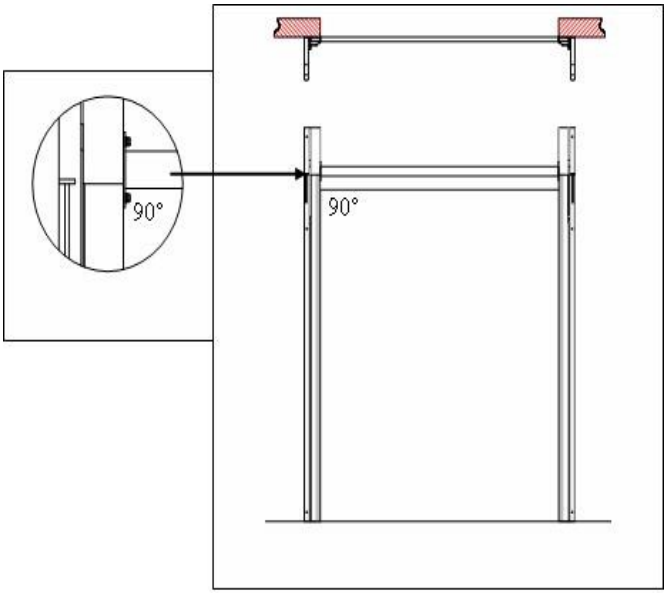
Along the outside of each side frame there are predrilled holes for either plug welding or bolting the side frame to the door opening.



Temporarily secure the second side frame to the opening. Attach width gauge across the upper section of both side frames (figure 4). This width gauge is equal to the manufactured door opening width.

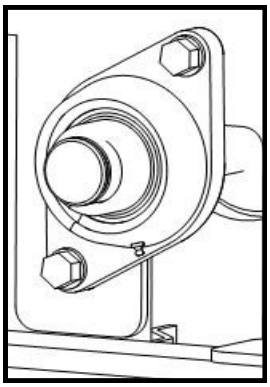
Once this is done verify all dimensions are plumb and square. The door width distance should be the same between the two side frames at any point along the door opening height. Once this has been confirmed, permanently attach both side frames by either bolting or welding. Plug weld or bolt the side frame to the doorframe.

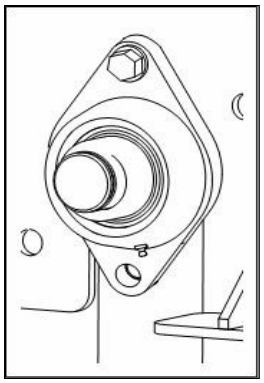
If plug welding the side frames you will also have to tack weld inside leading edge of frame to the door jamb across from the same location as the plug welds.

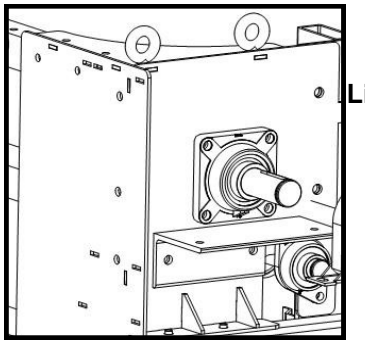


Preparing the header assembly for lifting

Loosen and remove the lower idler barrel bolt and move the idler barrel forward before lifting the header assembly. You will also want to lower the bottom beam assembly below the idler barrel with the manual hoist prior to rigging the header for lifting.



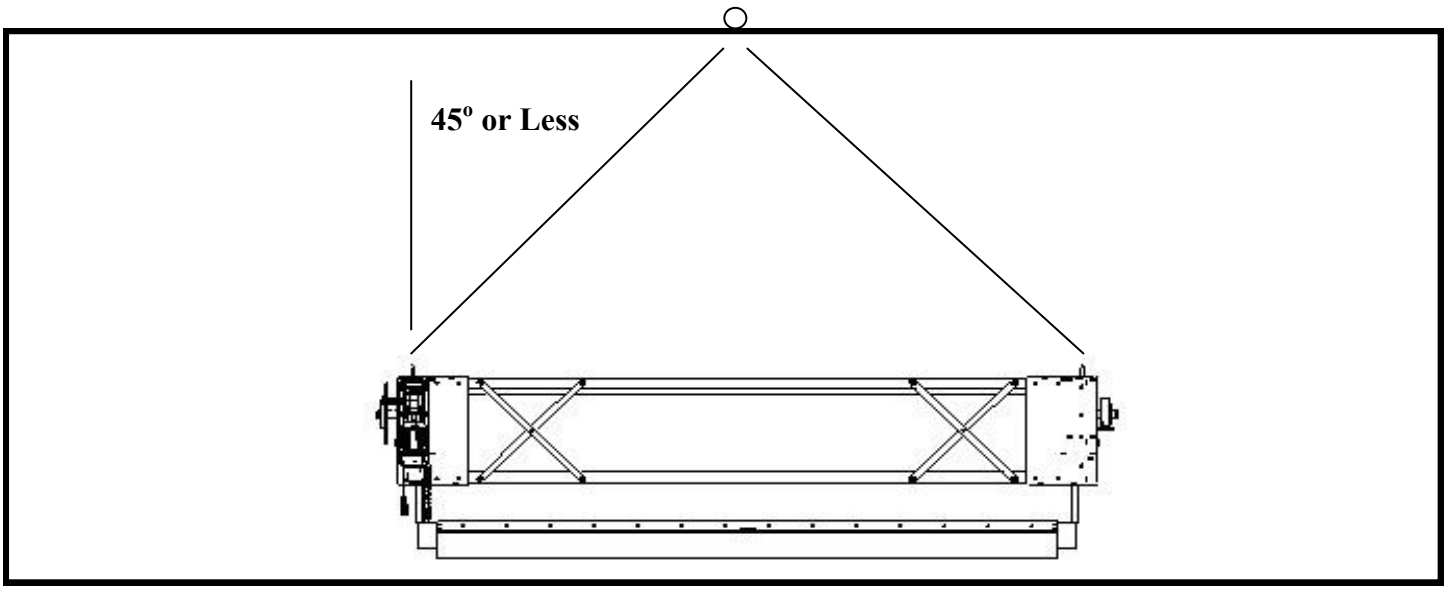


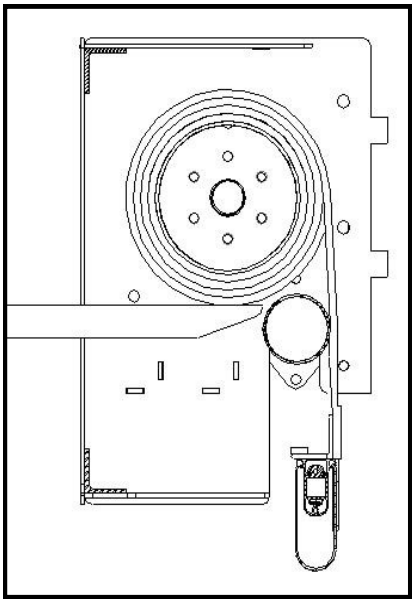


Lifting locations

There are eyebolts for lifting the header assembly into place located on the header plates. Attach cable or chain that is rated for the weight of the header assembly. Be sure to balance the header assembly before lifting into place.

⚠ WARNING The cable or chain used for lifting the header assembly must not exceed a 45 ° angle from vertical. Vertical lifting from the eyebolts is recommended whenever possible.



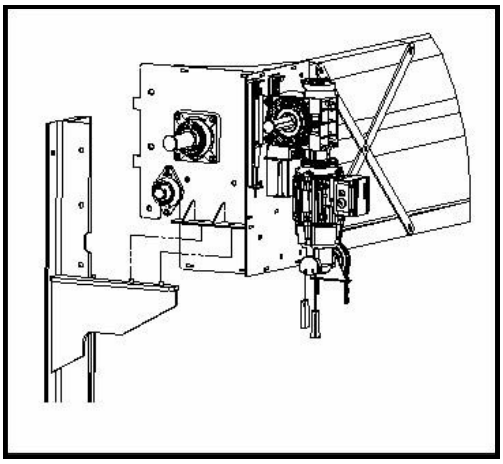


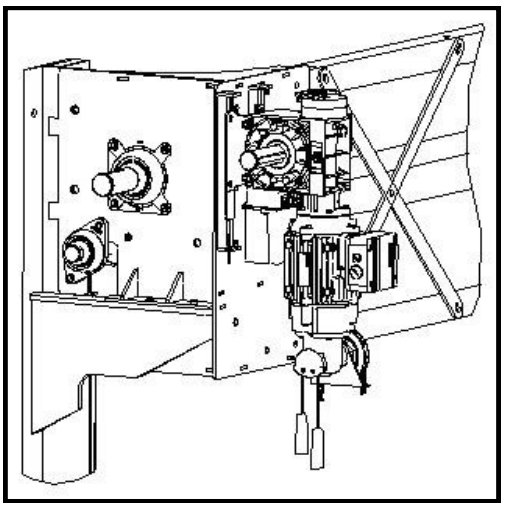
Lifting with a fork lift

⚠ WARNING

Never lift using the bottom beam or the idler barrel between the forks and the header assembly, damage can occur.

Place the forks of the forklift up under the top roll and not the header framework or the Idler Barrel. DAMAGE WILL OCCUR if the door is lifted by the idler barrel or header framework.
Be careful to have the header assembly properly balanced on the forks. Secure the header assembly to the forks to help prevent from falling.





NOTICE **Chain drive unit shown without chain for clarity only. The chain MUST be connected at all times during the previous and following steps. Direct drive units will be mounted in place at all times during these steps.**

Installing the Header

Using the alignment tabs and the align pins on the installed side frames, guide the header assembly into place.

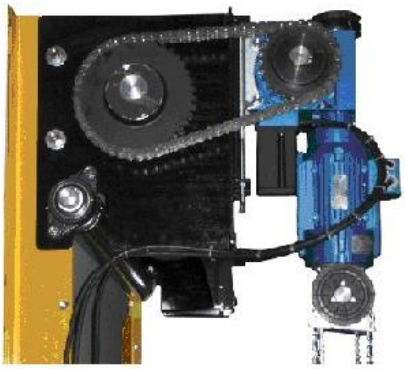
Note that the idler barrel-bearing has been swung out of the way

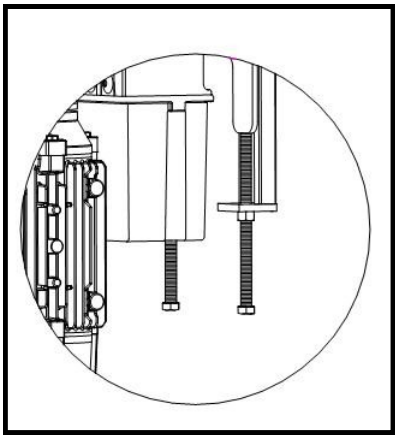
Never leave the header assembly unattended without fully bolting the header assembly to the side frames, or before removing lifting device and or leaving general area of the door installation.

Once the header is aligned and set into place. Bolt the assembly to the side frames. Small doors have 2 bolts per side; larger doors have 3 bolts per side. These should be torque to 212 ft-lb.

Drive Chain Tension

Shown here is a finished header assembly that has been installed. Also note the idler barrel has been bolted back into place back. The drive chain tension is preset from the factory. This setting should be checked after the door is cycled a few times. The drive chain is to be tensioned so the deflection of the slack side of the chain is equal to 2% of the distance between the shafts. For door over 12' x 12' this value is 3/8" (9.5 mm). For doors under 12' x 12' this value is 9/32" (7.1 mm).





Chain Tension Adjustment

If the Chain tension needs to be adjusted, loosen the 4 bolts that attach the operator to the header assembly.

Using the threaded adjustment bolts located on the bottom of the attachment bracket, either raise or lower the operator to achieve the proper tension.

Retighten the 4 bolts that attach the operator to the header assembly.

Counter Balance Springs (optional)

Pre-charging Springs

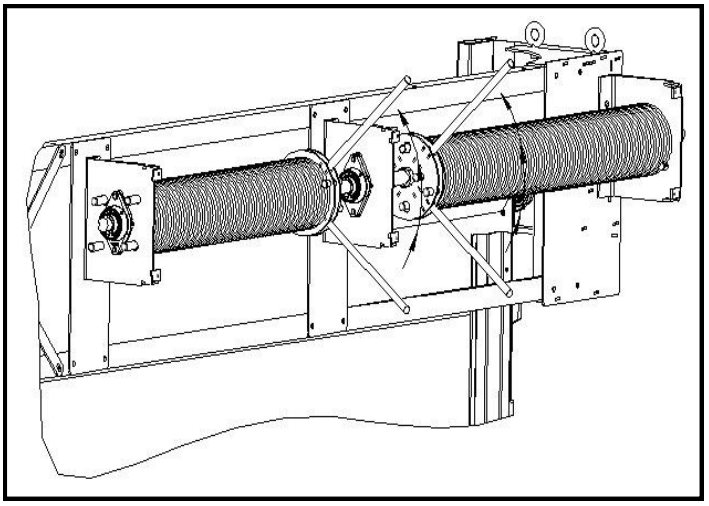
The springs must be pre-charged with the door curtain in the full open position. This pre-charge and pre-stretch amounts are listed on the spring end header end bracket. The spring is stretched after making the pre-turns of the spring. A**lway**s charge springs in the up position as shown.

CAUTION

Spring charging can be dangerous if done improperly. This procedure must be performed by a qualified person that possesses the knowledge to carry out this task safely and correctly.

The spring pre-charge and pre-stretch amounts indicated on the header end bracket are starting points and further adjustments may be required.

Monitoring the springs for coil bind thru



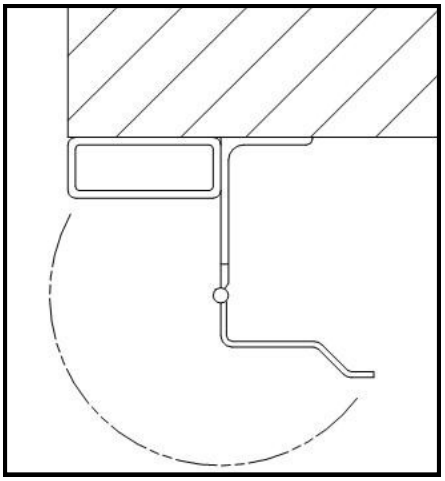
Hand Chain Operator

A manual hand chain is provided to move the door without power. Lightly pull the red handle of the hoist disengagement until it stops. The control circuit is now interrupted and the door can be opened or closed with the hand chain only.

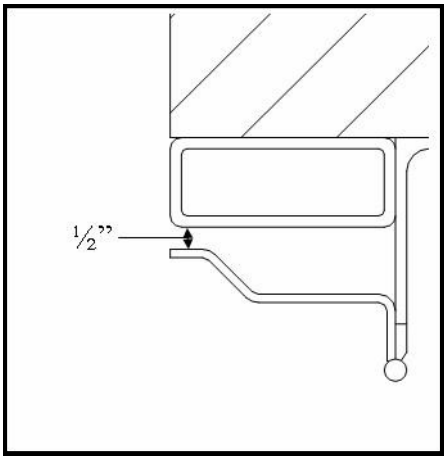
By lightly pulling the green handle until it stops, the control circuit is re-made and the door is electrically operational and the hoist is disengaged from the drive.

Closing the side frames

Open the side frame covers as shown. Bring the curtain down with the hoist so it travels behind the idler barrel and down into the guides of the side frame. (If necessary to get the bottom beam behind the idler barrel, remove the bottom bolt on each side of the idler barrel, and swing it down out of the way.)



The next drawing shows the guides closed and set to the proper clearance gap. This gap is a **minimum of ½" (13 mm)**. This gap allows the curtain to travel within the guide freely and may require adjusting. Check the gap from top to the bottom of the guide prior to running the door. Loosening the cover bolts and utilizing a pry bar to hold the gap while the bolt is tightened may be required.



Installing the inertia brake

The inertia brake is supplied on all chain drive, springless UltraTough M&I door systems that are a manufactured size greater than 12' x 12'.

This device has a locking catch and locking wheel that triggers the braking action if the maximum operation speed is exceeded.

NOTICE

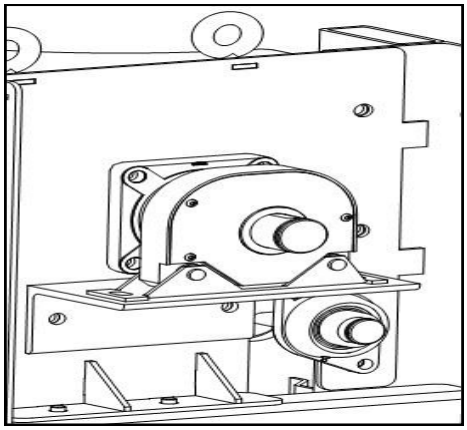
The smaller inertia brake shown in Figure 1 is a one-time use only device. If it has been engaged it must be replaced (P/N 6622T001).

The larger inertia brake shown in Figure 2 can be reset but is dependant upon how hard of an activation has taken place. If this brake has been engaged you will need to consult The UltraTough Owners Manual or the factory for instructions to properly inspect, repair or replace this brake. Repair parts may be required.

Either of these brakes must be installed after the phase rotation has been verified to prevent accidental actuation of the device.

This device is installed on the bracket on the non-drive side of the header assembly. This must be installed with the correct rotation direction. Installing backwards can cause the brake to activate.

The electrical control cutoff must be wired before the door will operate properly.



Figures 1 & 3 show that the inertia brake has been engaged. This is evident by the RED Indicator tab sticking out of the housing.

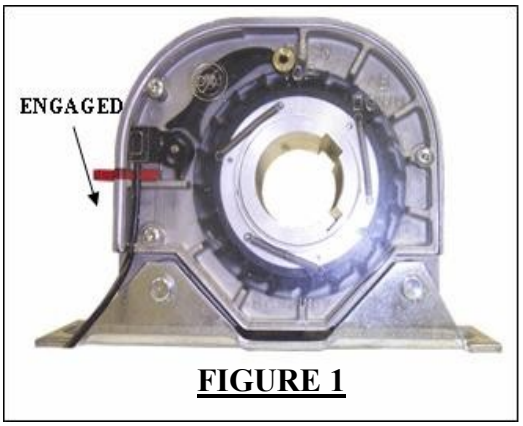


FIGURE 1

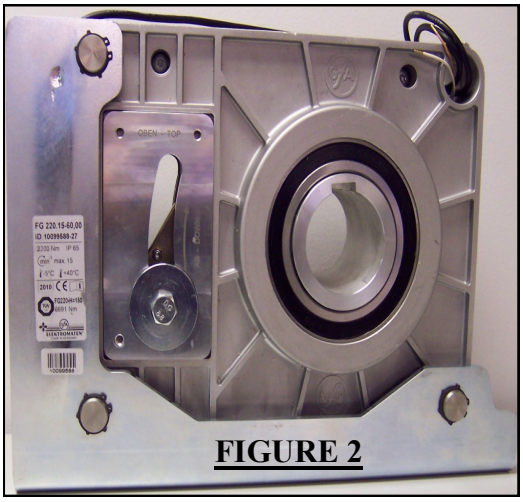


FIGURE 2

The brake in Figure 2 only may be reset in most activations. This brake is used on the UltraTough XL and UltraBig doors only.

You must consult the UltraTough Owners Manual or Albany Doors for proper resetting instructions.

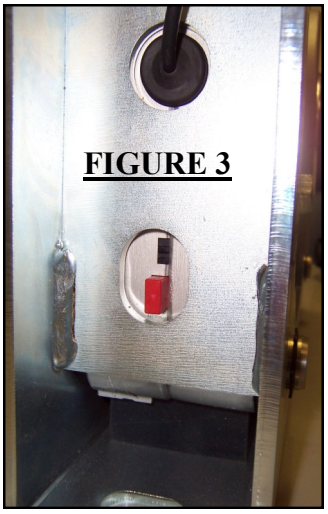
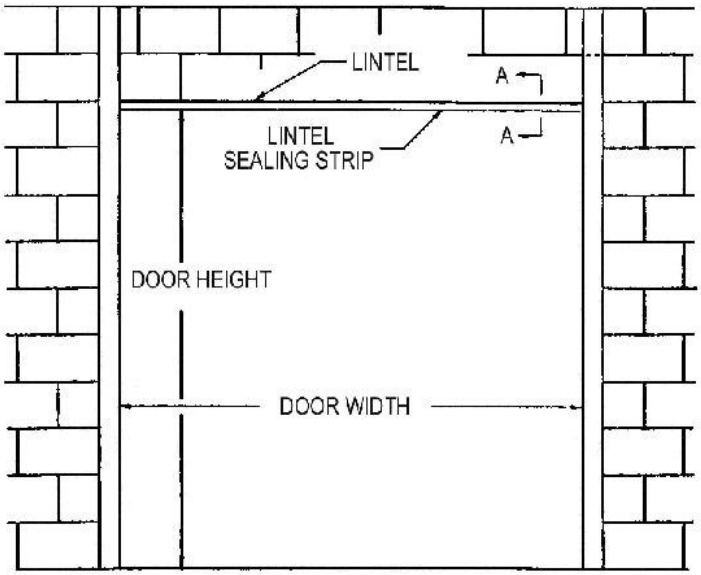


FIGURE 3

Installing the lintel brush seal

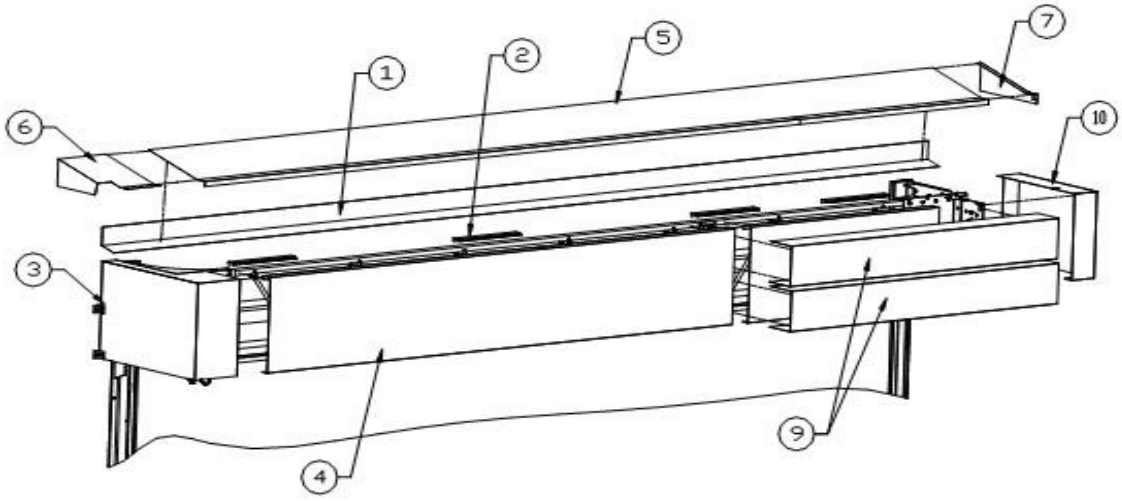
Every UltraTough M&I Door System is supplied complete with a lintel sealing strip, the purpose of which is to seal the area between the header and the curtain. Keep in mind that if the guides had to be shimmed of the wall then this may require the same shimming of the lintel for the seal to be able to reach the curtain.

To install the lintel sealing strip, use fasteners appropriate to the material used as lintel (or use ¼" TEK self-tapping screws supplied with each door and located in the hardware carton). For further details refer to drawing shown below.



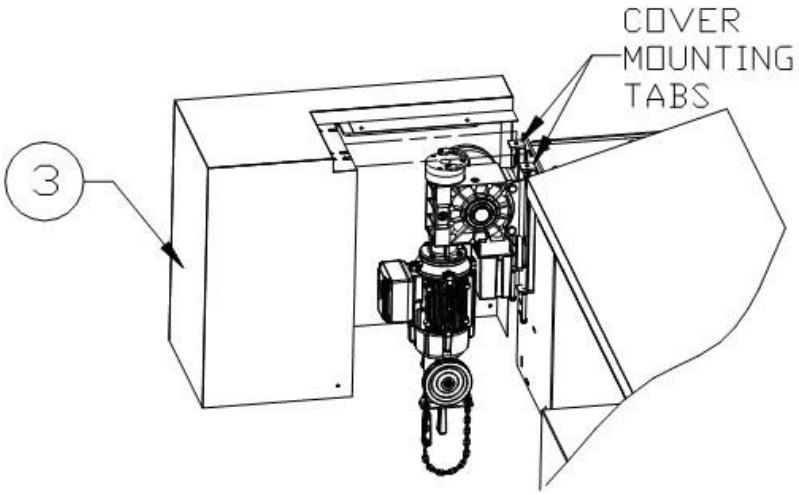
Sealing strip holder – length equal to door width minus 1"
Sealing strip – length equal to door width plus 1"
Fasteners located on 12" centers.

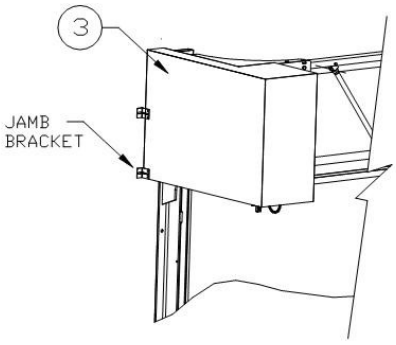
FULL ROLL COVER INSTALLATION FOR A SPRING BALANCED DOOR



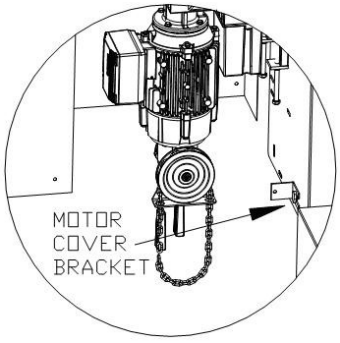
MOUNTING MOTOR COVER

Remove installation eyelets. Mount the motor cover over the mounting tabs using a 3/8” bolt.

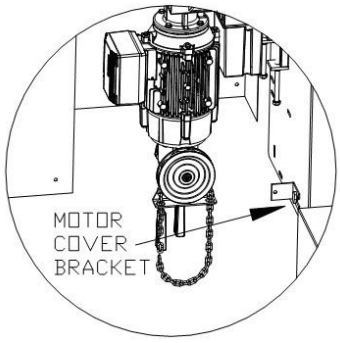




NOTE: One jamb bracket is required for doors smaller than 12’ X 12’.



Loosen truss channel bolt to attach motor cover bracket.



NOTE: Motor cover bracket mounts inward for doors smaller than 12’ X 12’.

Mounting top cover support wall attachment angled flashing

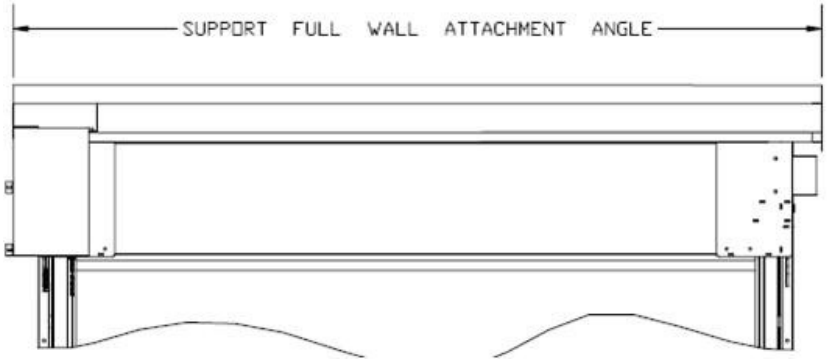
Wall mount the 120 degree angle flashing 6" above the highest point of the header. This flashing may consist of several pieces that will overlap each other across the full width. Once mounted to the wall, caulk between the wall and angle.

NOTE: Corrugated sheet metal buildings may require additional material to seal or cutting of the sheet metal so that this flashing can be installed behind the corrugated metal for a proper weather seal.

Top cover and end caps

The top cover (item #5) is now ready to set into place. The top cover may consist of more then one piece that will require then to be overlapped evenly across the top of the header. Fasten the covers with a couple of tek screws just to hold the cover so that the end caps(items 6 & 7) can be fitted into place. Make sure all these covers fit cleanly before screwing everything down.

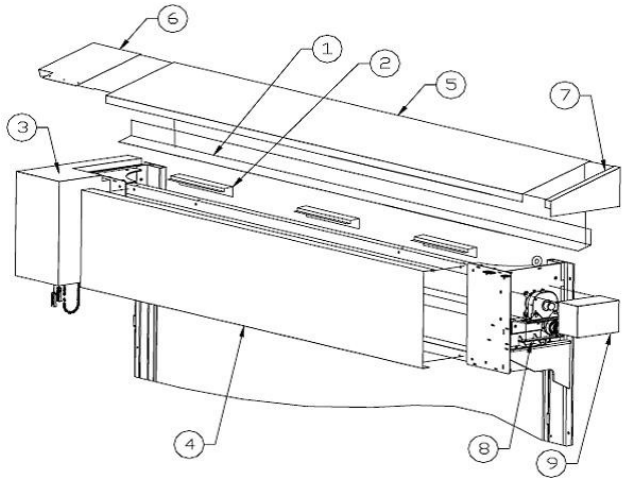
Once all the covers are in place and secured, place a bead of caulking along all seams to provide the best weather seal possible. Keep in mind these covers may need to be removed for service later on, so keep the caulking neat and minimal.



Springless with Inertia Brake

Installation of inertia brake cover

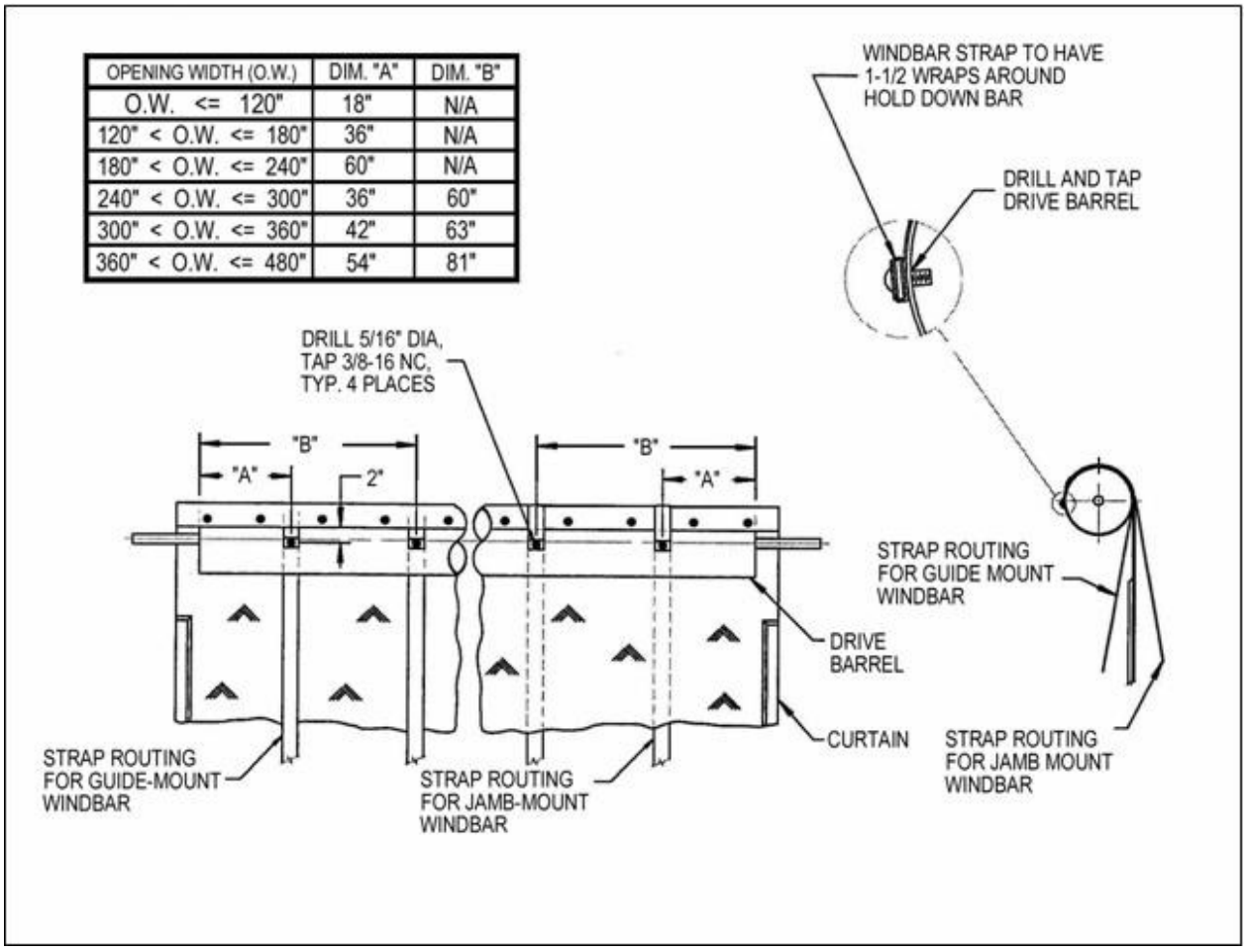
The only difference between the covers for a door with springs and the covers for a door without springs would be the spring covers and the end cover for the inertia brake. The front cover (item #4) will cover the whole span on the front of the header due to the absence of the springs. The inertia brake will have a smaller cover (items #8 & 9) compared to the spring sprocket cover. Everything else is basically the same for installation purposes



MECHANICAL PROCEDURES

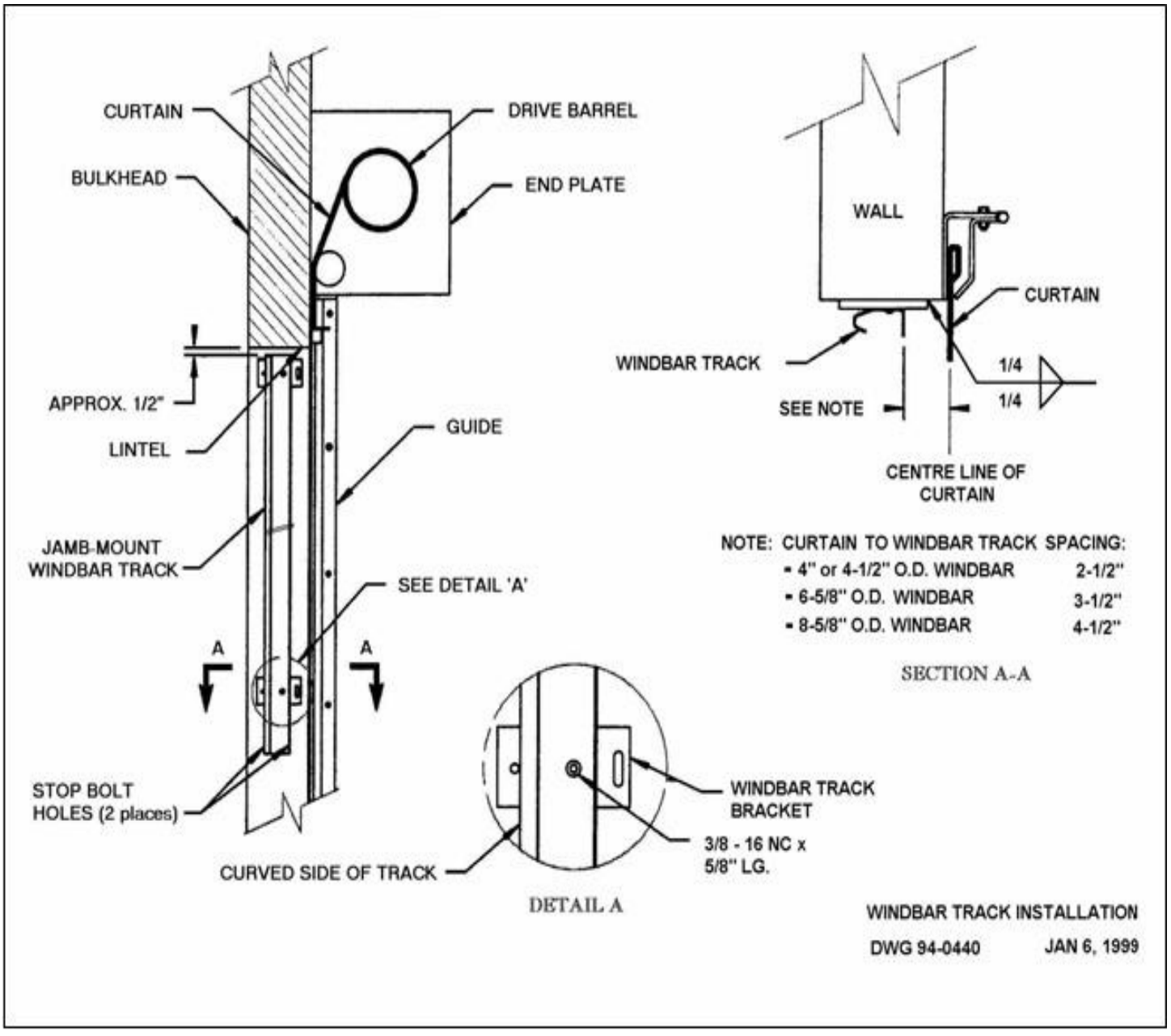
TRAVELING WINDBAR ASSEMBLY – DRIVE BARREL

This page is for reference only. Straps are attached to the barrel at the factory.

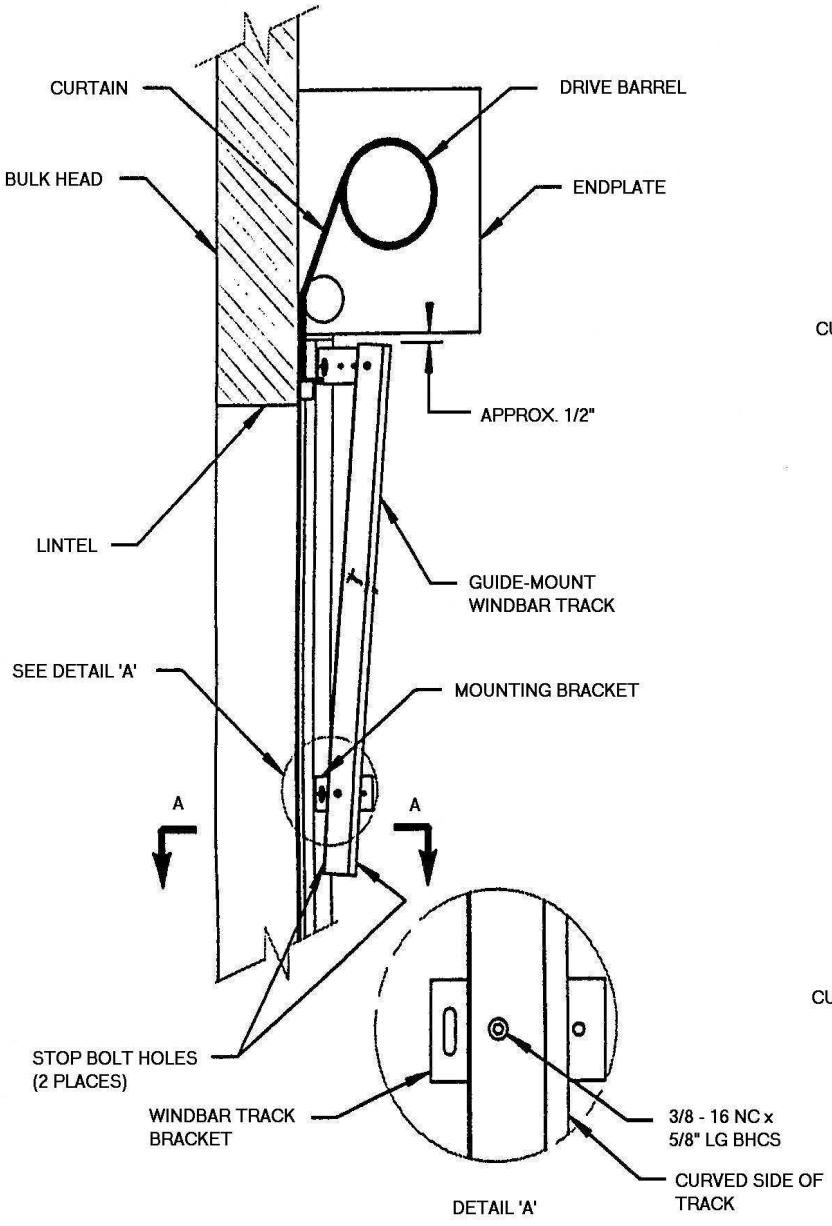

OPENING WIDTH (O.W.) | DIM. "A" | DIM. "B"
O.W. <= 120" | 18" | N/A
120" < O.W. <= 180" | 36" | N/A
180" < O.W. <= 240" | 60" | N/A
240" < O.W. <= 300" | 36" | 60"
300" < O.W. <= 360" | 42" | 63"
360" < O.W. <= 480" | 54" | 81"
WINDBAR STRAP TO HAVE 1-1/2 WRAPS AROUND HOLD DOWN BAR
DRILL AND TAP DRIVE BARREL
DRILL 5/16" DIA, TAP 3/8-16 NC, TYP. 4 PLACES
"B"
"A"
2"
"B"
"A"
STRAP ROUTING FOR GUIDE MOUNT WINDBAR
DRIVE BARREL
CURTAIN
STRAP ROUTING FOR JAMB MOUNT WINDBAR
STRAP ROUTING FOR GUIDE-MOUNT WINDBAR
STRAP ROUTING FOR JAMB-MOUNT WINDBAR

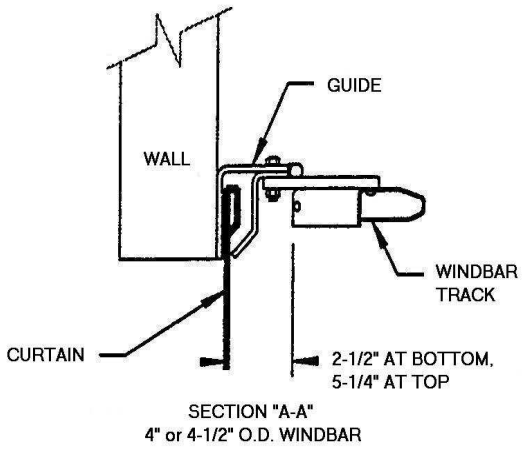
OPENING WIDTH (O.W.)	**DISTANCE FROM OUTSIDE OF ENDPLATE TO STRAP LOCATION**	
	DIM 'C'	DIM 'D'
O.W. <= 120''	9 ''	S/O
120'' < O.W. <= 180''	18''	S/O
180'' < O.W. <= 240''	36''	S/O
240'' < O.W. <= 300''	18''	42''
300'' < O.W. <= 360''	27''	48''
360'' < O.W. <= 480''	33''	60''

TRAVELING WINDBAR ASSEMBLY – JAMB MOUNT

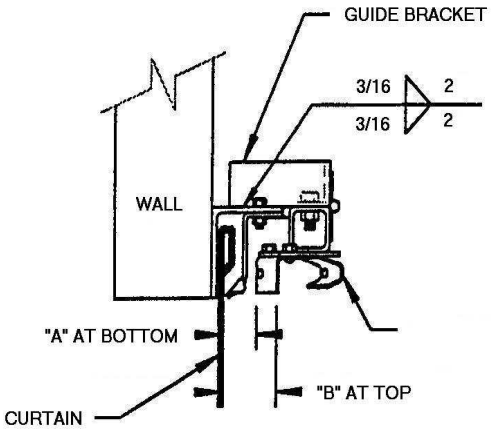


TRAVELING WINDBAR ASSEMBLY – GUIDE MOUNT





SECTION "A-A"
4" or 4-1/2" O.D. WINDBAR

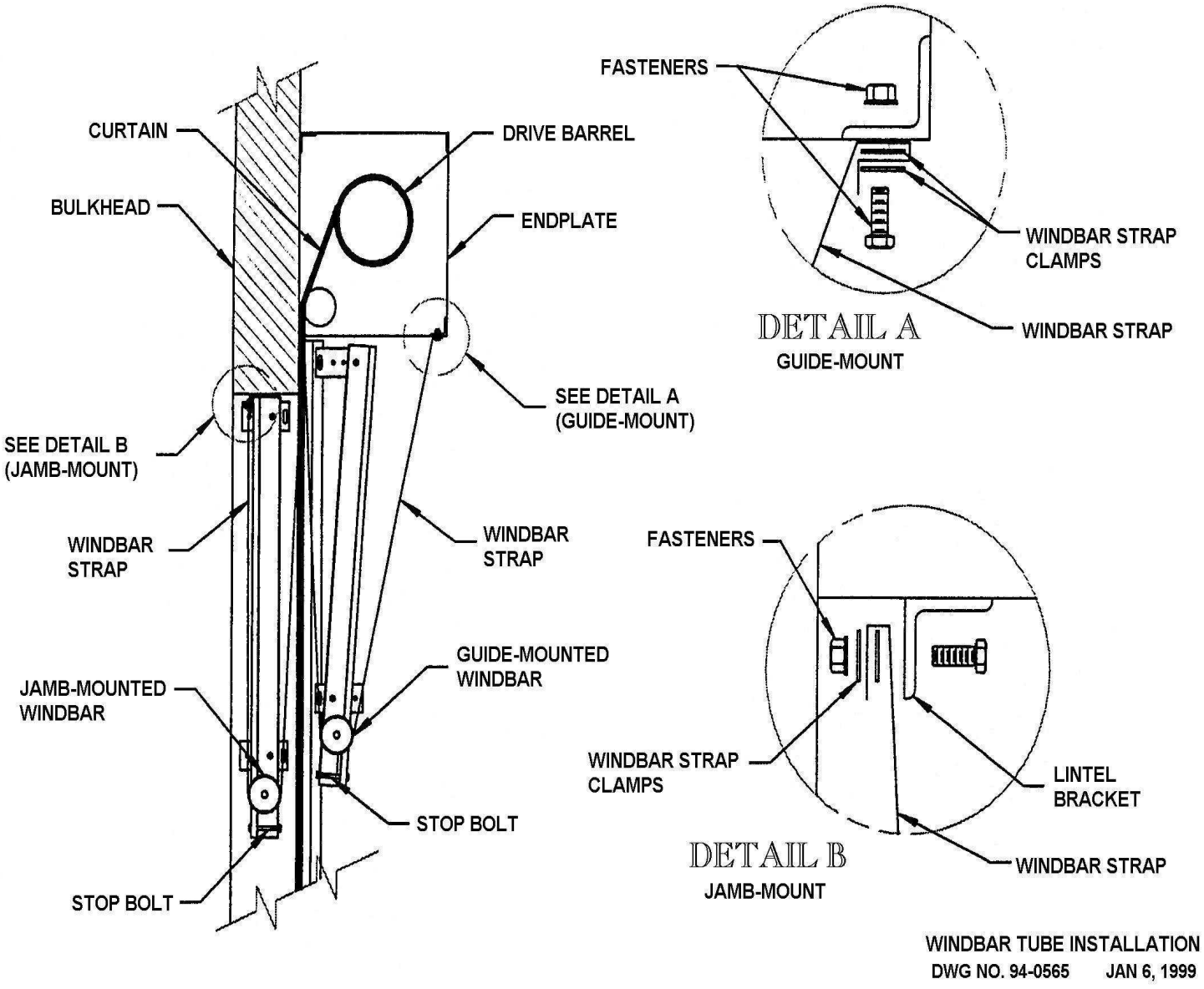


SECTION "A - A"
6-5/8" or 8-8-5/8" O.D.
WINDBAR

PIPE DIA.	'A'	'B'
6-5/8"	3"	4"
8-5/8"	4"	5"

WINDBAR TRACK INSTALLATION
DRAWING NO. 94-0548

TRAVELLING WINDBAR ASSEMBLY – WINDBAR STRAP



STEP 1

NOTICE

If the door was supplied from the factory with a Traveling Windbar, proceed directly to Step 2.

- With the door in the closed position, disconnect the power supply.
- Determine dimension “A” and “B” from the chart and measure the drive barrel to the required locations. From these locations, move to the closest center between curtain fasteners and mark the barrel 2” from the curtain edge.
- Drill a ∅ 5/16” hole and tap 3/8 – 16 screw threads into the drive barrel at all locations.
- Wrap a hold-down bar with the windbar strap (1-1/2 wraps) and pierce a hole through the strap layers that aligns with the hole in the hold-down bar. Fasten the strap to the drive barrel with a 3/8-16NC x 5/8” LG BHCS and flat washer. Repeat this procedure with the remaining windbar strap(s).
- If installing a jamb-mount windbar, route the straps over the top of the curtain and down between the curtain and the bulkhead. Check that the straps are not twisted.
- If installing a guide-mount windbar, feed the strap between the drive barrel and the curtain. This procedure may require further closing of the door with the manual chain hoist to loosen the curtain tension.

NOTICE

If the door was supplied from the factory with a guide-mount 6-5/8” or 8-5/8” Traveling Windbar, proceed directly to STEP 3.

- If installing a 4” or a 4-1/2” O.D. windbar, fasten one (1) windbar track bracket to each hole provided in the windbar tracks. Orient the windbar track bracket with the slot protruding beyond the track edge opposite the curve. Fasten each bracket to the track using one (1) 3/8-16NC x 5/8” LG BHCS per bracket.
- With the door in the open position, disconnect the power supply.
- There is a left-hand and right-hand windbar track. Determine the appropriate location for each track given, that the curved side is furthest from the curtain and the stop bolt holes are at the bottom.
  Determine the curtain to windbar track spacing required for the traveling windbar diameter (4”, 4-1/2”, 6-5/8” or 8 -5/8” O.D.).
- If installing a 4” or a 4-1/2” O.D. windbar, unbolt the respective guide fasteners which align with the mounting brackets. Discard these fasteners and attach the windbar track using the 3/8-16NC x 1-1/2” long HHCS and nuts provided.
- If installing a 6-5/8” or an 8-5/8” O.D. windbar, position the windbar track to the guides accordingly and weld each guide bracket to the outside of the guide back plate with two (2) 2” long fillet welds.

STEP 2

NOTICE

APPLIES TO ALL JAMB-MOUNTED WINDBARS

- Fasten one (1) windbar track bracket to each hole provided in the two (2) windbar tracks. Orient the windbar track bracket with the slot protruding beyond the track edge opposite the curve. Fasten the bracket to the track using one (1) 3/8 – 16 NC x 5/8" long BHCS per bracket.

  With the door in the open position, disconnect the power supply.

- There is a left-hand and right-hand windbar track. Determine the appropriate location for each track given, that the curved side is furthest from the curtain and the stop bolt holes are at the bottom.

- Determine the curtain to windbar track spacing required for the traveling windbar diameter (4", 4-1/2", 6-5/8" or 8-5/8" O.D.)

- Position the windbar track to the jamb accordingly and weld mounting bracket to the jamb or fasten thru the slot provided

STEP 3

NOTICE

WINDBAR TUBE INSTALLATION APPLIES TO 4" OR 4-1/2" DIAMETER WINDBARS

- Determine dimensions "C" and "D" from the chart and mark the lintel (jamb mount) or the spreader bar (guide mount) at these dimensions from the outside of the end plates.

- If installing a jamb-mounted windbar, weld a lintel bracket at each mark on the lintel, 6" from the curtain.

- If installing a guide-mounted windbar, temporarily center and clamp a "windbar strap clamp" at the specified location on the lower front spreader bar to match drill the 5/16" diameter holes.

STEP 3a

NOTICE

WINDBAR TUBE INSTALLATION APPLIES TO 6-5/8" OR 8-5/8" DIAMETER WINDBARS

- Determine dimensions "C" and "D" from the chart and mark the lintel (jamb mount) or the truss (guide-mount) at these dimensions from the outside of the end plates.spreader bar (guide mount) at

- If installing a jamb-mounted windbar, weld a ratchet buckle at each mark on the lintel, 9" from the curtain (see Detail B).

- If installing a guide-mounted windbar, weld a ratchet buckle at each mark on the bottom of the truss (see Detail A).

STEP 4

NOTICE

APPLIES TO 4” OR 4-1/2” DIAMETER WINDBARS

- With the door in the closed position, disconnect the power supply.

  *Note: Roller wheels may come factory-installed in windbar tube.

- Insert a roller wheel into each end of the windbar tube. “Snuggly” install a set screw and nut (nut supplied as a spacer) in both ends of the windbar tube (do not over-tighten). With set screws in place, the roller wheels will extend and retract without separating from the windbar tube.

- Lift the windbar into the bottom of the tracks. Insert a stop bold (3/8-16NC x 3-1/2” LG HHCS) into the hole at the bottom of each track and secure with a 3/8-16NC hex nut.

- Route the windbar straps around the bottom of the windbar tube, then upward towards the lintel (jamb-mount) or spreader bar (guide-mount). Check that there are no twists in the straps.

- Route the loose end of each windbar strap between individual windbar strap clamps and temporarily fasten to the lintel bracket (jamb-mount) or spreader bar (guide-mount).

- Carefully raise the door to the open position. Examine the location of the windbar with respect to the top of its tracks. If adjustments to the windbar straps are required, return the door to the closed position to do so.

- Once adjustments are complete, secure the windbar strap and clamps to the lintel bracket (jamb-mount) or spreader bar (guide-mount) with the fasteners provided. Trim excess strap material leaving at least 1-1/2” of extra strap hanging below the strap clamps and fasteners.

STEP 4a

NOTICE

APPLIES TO 6-5/8” OR 8-5/8” DIAMETER WINDBARS

- With the door in the closed position, disconnect the power supply.

- Insert a roller wheel into each end of the windbar tube.

- Lift the windbar into the bottom of the tracks. Insert one stop bolt (3/8-16NC x 3-1/2” LG HHCS) into the holes at the bottom of each track and secure with 3/8-16NC hex nuts.

- Route the windbar straps around the bottom of the windbar tube, then upward towards the lintel for jamb-mount or spring truss for guide-mount. Check that there are no twists in the straps.

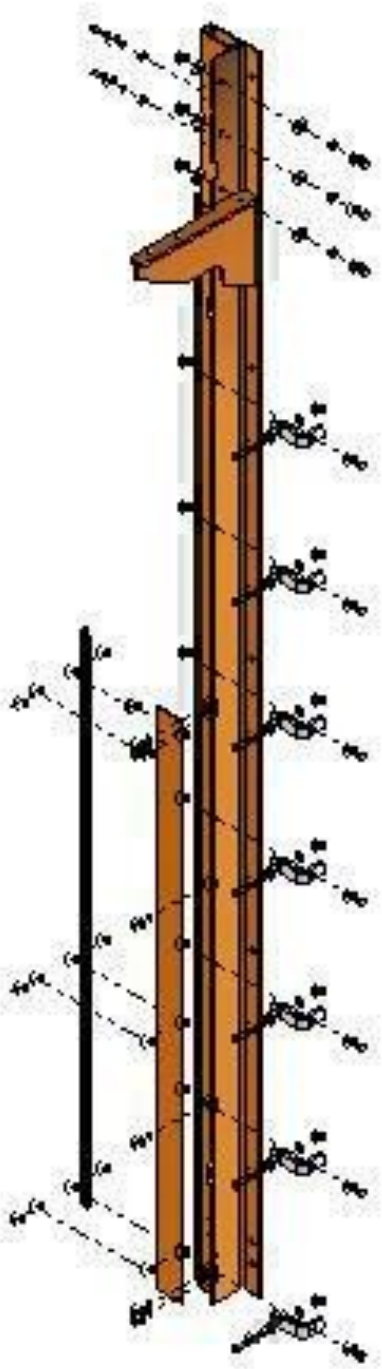
- Route the loose end of each windbar strap through the slot in the spool of individual ratchets on the lintel for jamb-mount or on the spring truss for guide-mount.

- Carefully raise the door to the open position, examine the location of the windbar with respect to the top of its tracks. If adjustments to the windbar straps are required, return the door to the closed position to do so.

- Once the adjustments are complete, trim excess strap material, leaving a minimum of three (3) full wraps of strap on the spool of the ratchets.

Truck Guard with Gussets Installation

1.Remove the flat bar from the side column.



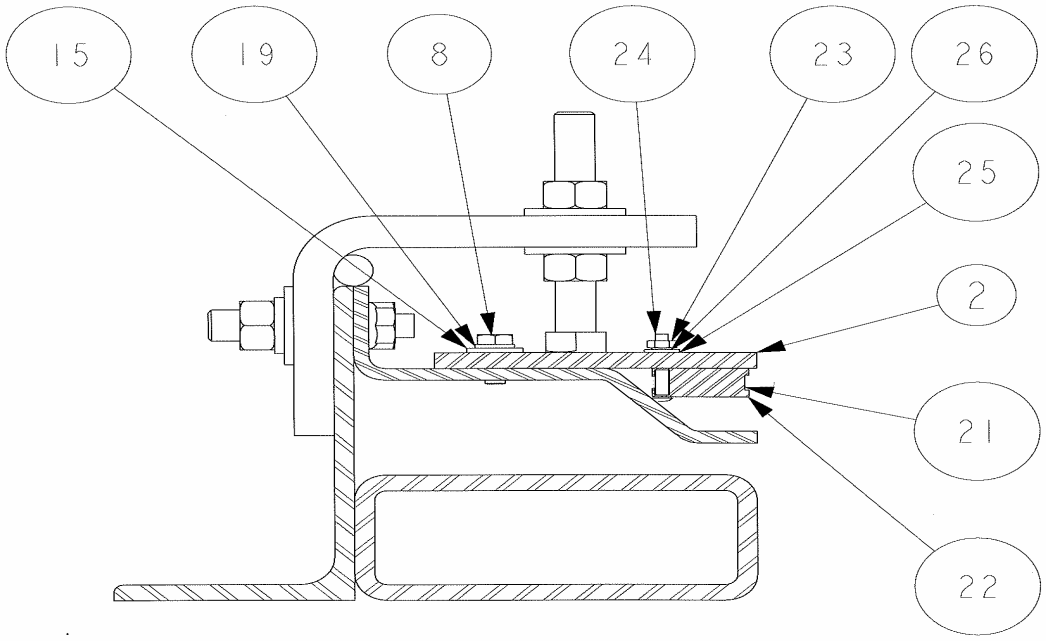
2. Install the light curtain to the flat bar using the hardware included.

3. Once the light curtain is secured, reinstall the flat bar to the side column.

4. Repeat on opposite side.

See next page for exploded view of the light curtain and guide gusset.

Truck Guard with Gussets Installation



TOP VIEW

ITEM #	DESCRIPTION	QTY
2	Guard, light curtain flat bar	1
8	1/4-20 x 5/8 HHCS, zinc	6
15	1/4 flat washer, zinc	6
19	1/4 lock washer, zinc	6
21	Light curtain, SG14 Receiver	1
22	Light curtain, SG14 Transmitter	1
23	Nut, #6, zinc	3
24	6-32 x 1 BHCS	3
25	#6 flat washer, zinc	3
26	#6 lock washer, zinc	3

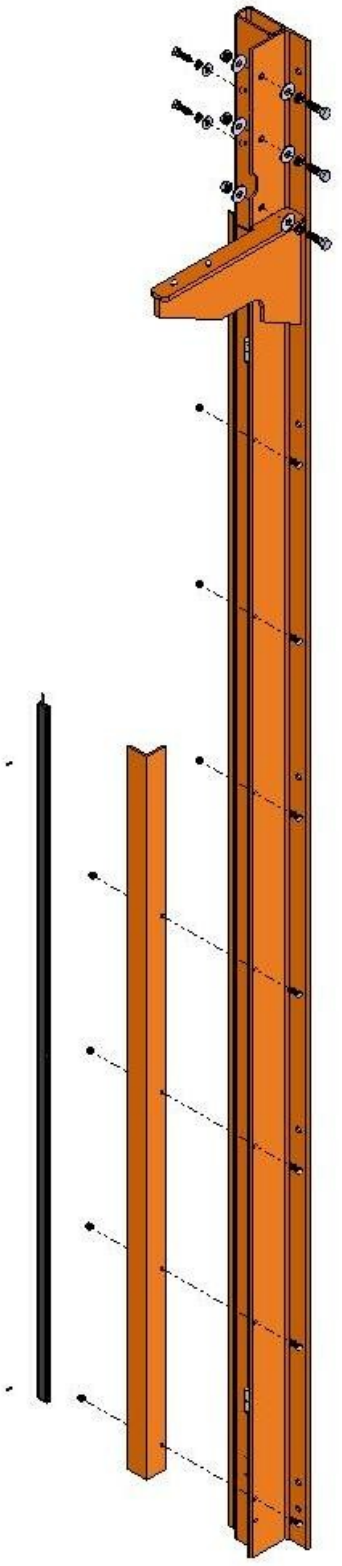
Truck Guard Installation

1.Remove lower sets of bolts from front covers.

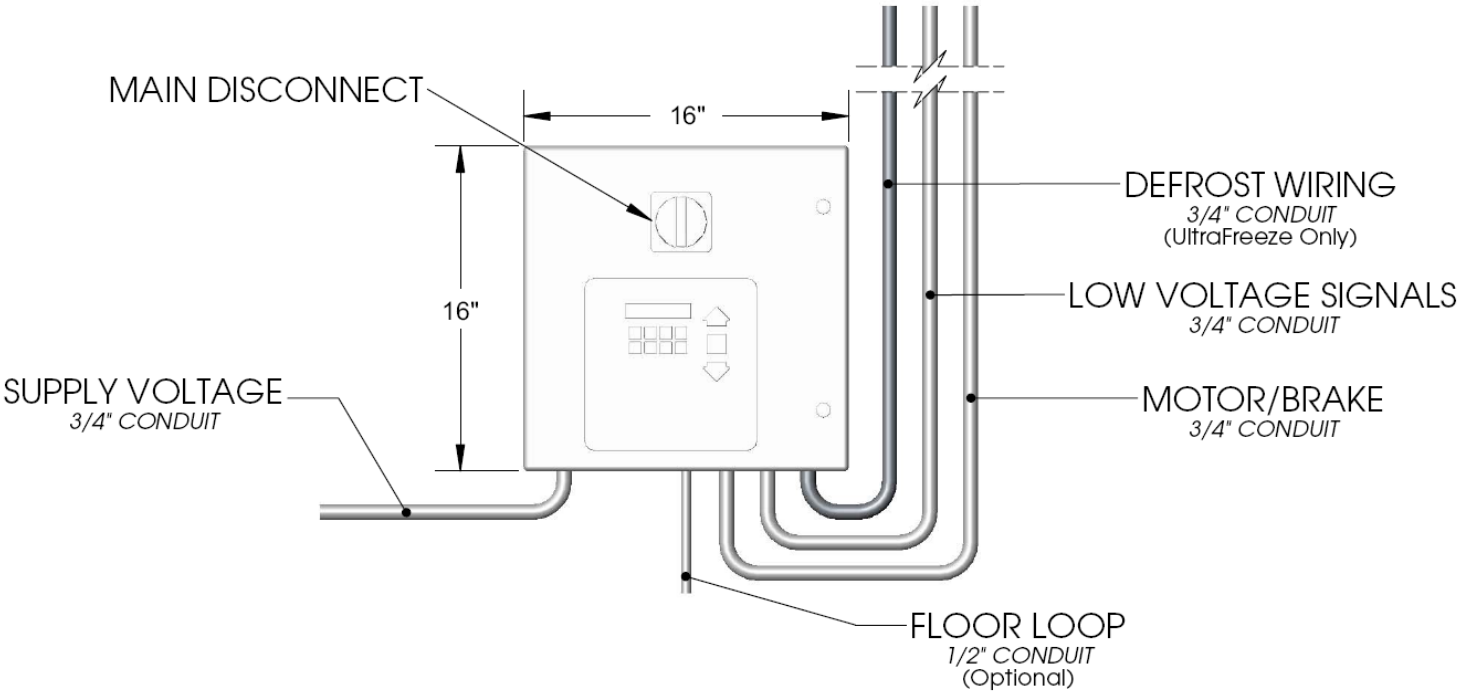
2. Install light curtain to front side frame cover using two screws provided.

3. Place angle over lower bolt holes in front cover orienting as shown and reinstall the bolts.

4. Repeat on opposite side.



ELECTRICAL CONNECTIONS



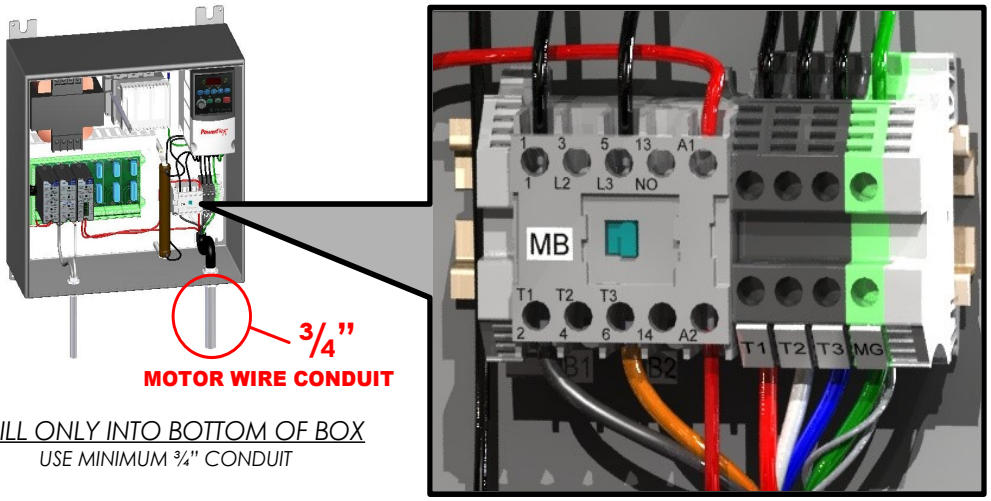
- **REFER TO INDIVIDUAL DOOR SCHEMATICS FOR SPECIFIC DETAILS ON OPTIONAL EQUIPMENT..**

CONDUIT ROUTING

NOTICE **All conduit and electrical connections must come in through the bottom of the control box.**

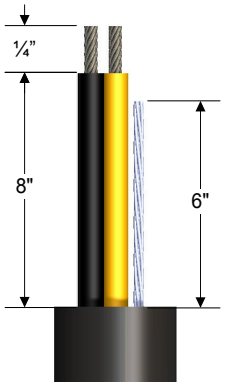
-A- Motor/Brake—3/4” Conduit (all doors)
-B- Low Voltage Signals—3/4” Conduit (all doors)
-C- Primary Power Supply—3/4” Conduit (all doors)
-D- Secondary Power Supply—3/4” Conduit (some UltraFreeze doors)
-E- Floor Loop—1/2” Conduit (optional)

MOTOR WIRING

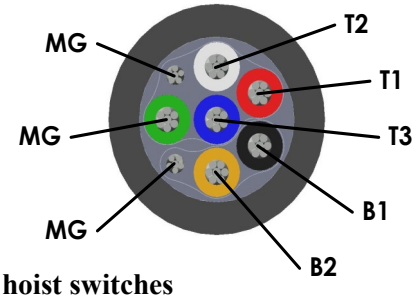


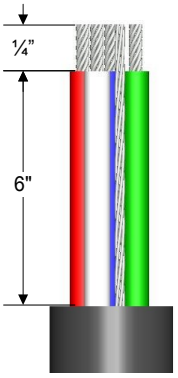
DRILL ONLY INTO BOTTOM OF BOX
USE MINIMUM ¾" CONDUIT

WIRE STRIP GAUGE



	WIRE	TO TERMINAL
SEPARATE FOIL SHIELD	RED	T1
	WHITE	T2
	BLUE	T3
	GREEN	MG
	BARE SHIELD DRAIN	MG
SEPARATE FOIL SHIELD	BLACK	B1
	ORANGE	B2
	BARE SHIELD DRAIN	MG

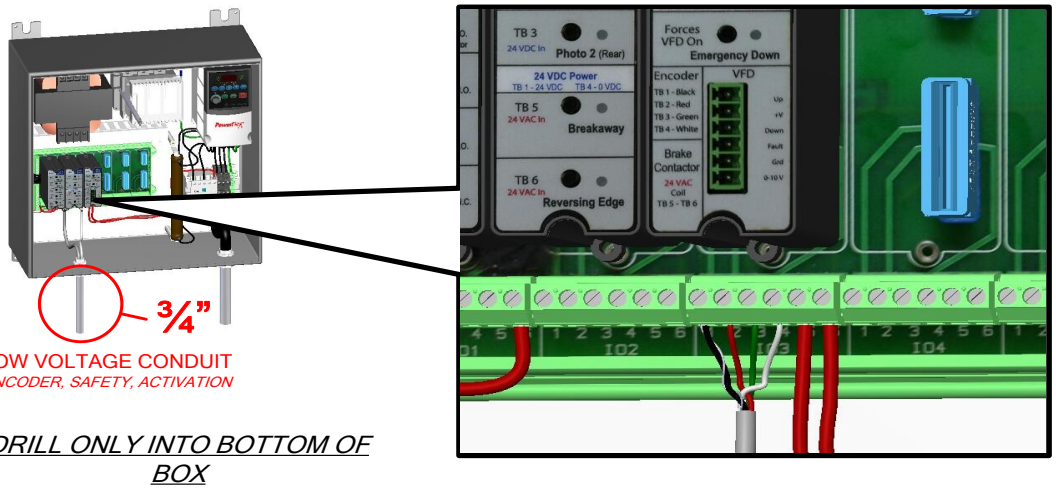




See next page for additional connections of thermal & hoist switches

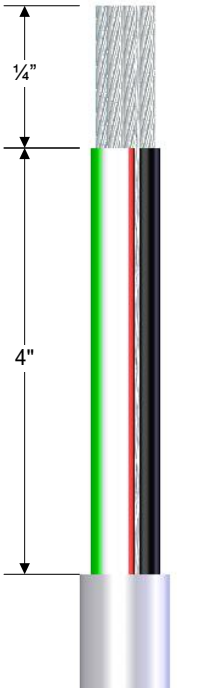
NOTE: TO CHANGE DIRECTION OF MOTOR ROTATION – SWITCH T1 AND T2

ENCODER WIRING

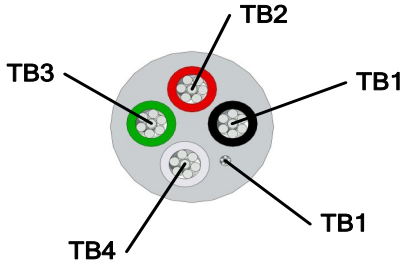


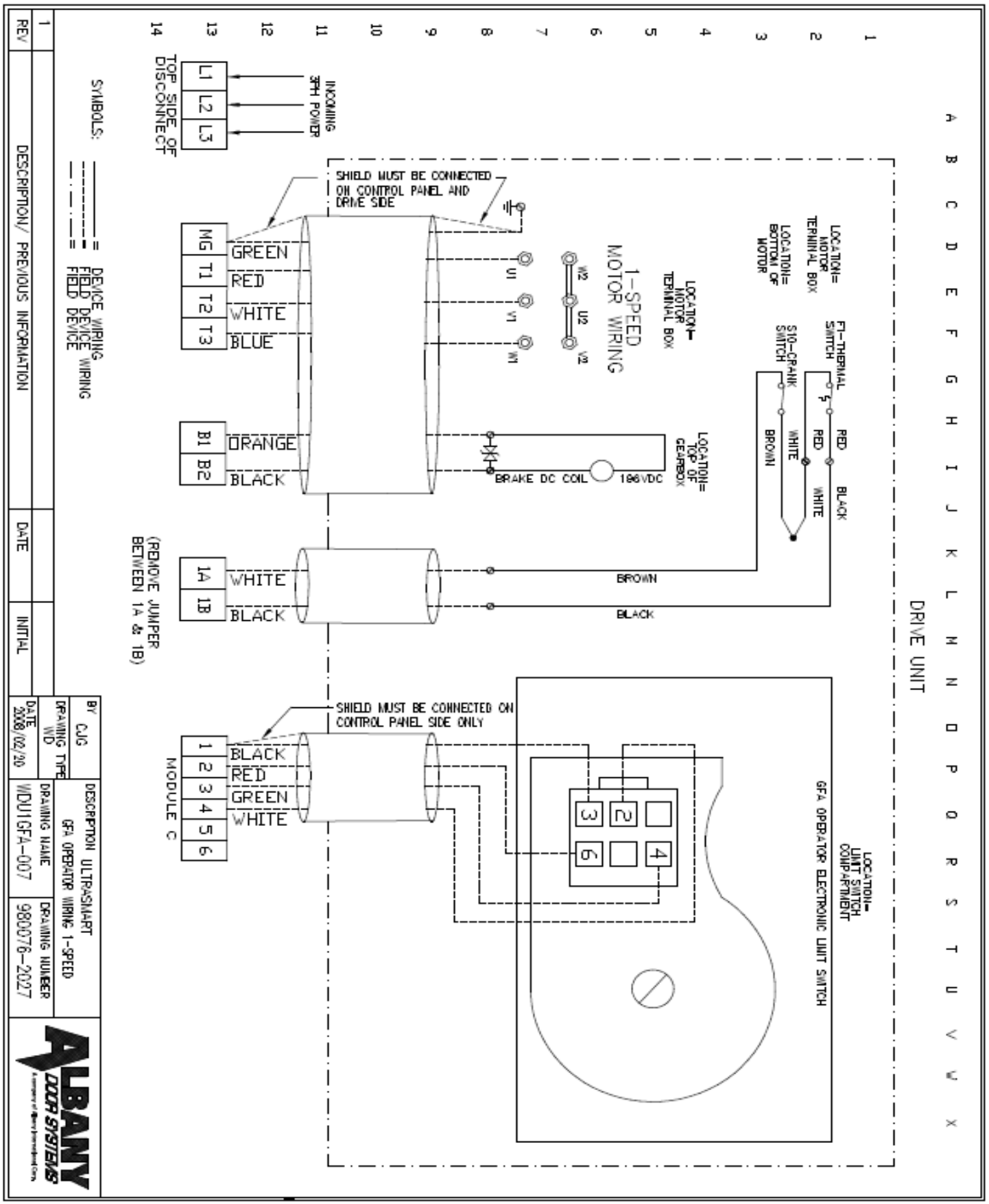
DRILL ONLY INTO BOTTOM OF BOX
USE MINIMUM ¾" CONDUIT

WIRE STRIP GAUGE

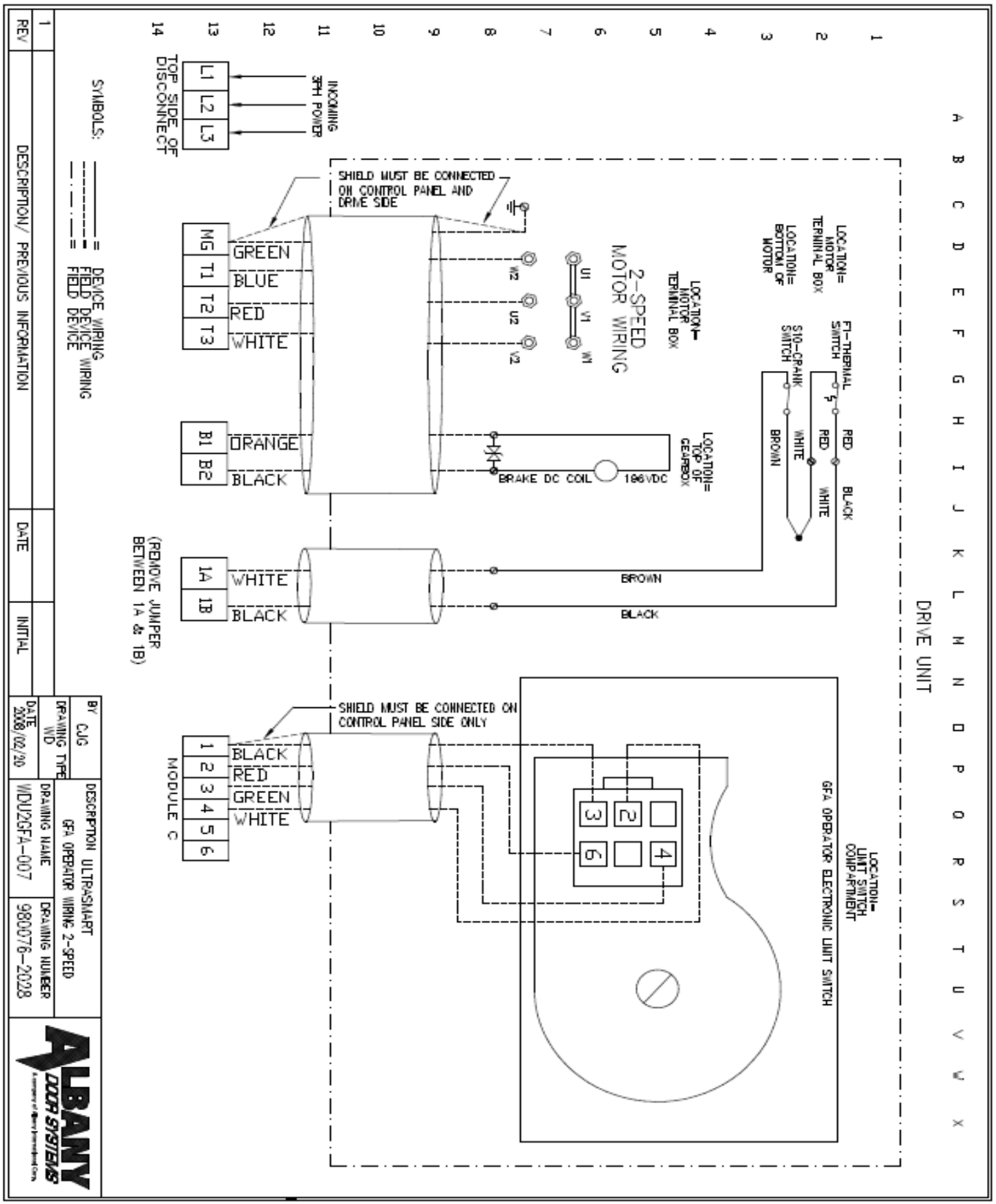


WIRE	TO TERMINAL
BLACK	Module C - TB1
RED	Module C - TB2
GREEN	Module C - TB3
WHITE	Module C - TB4
BARE SHIELD DRAIN	Module C - TB1



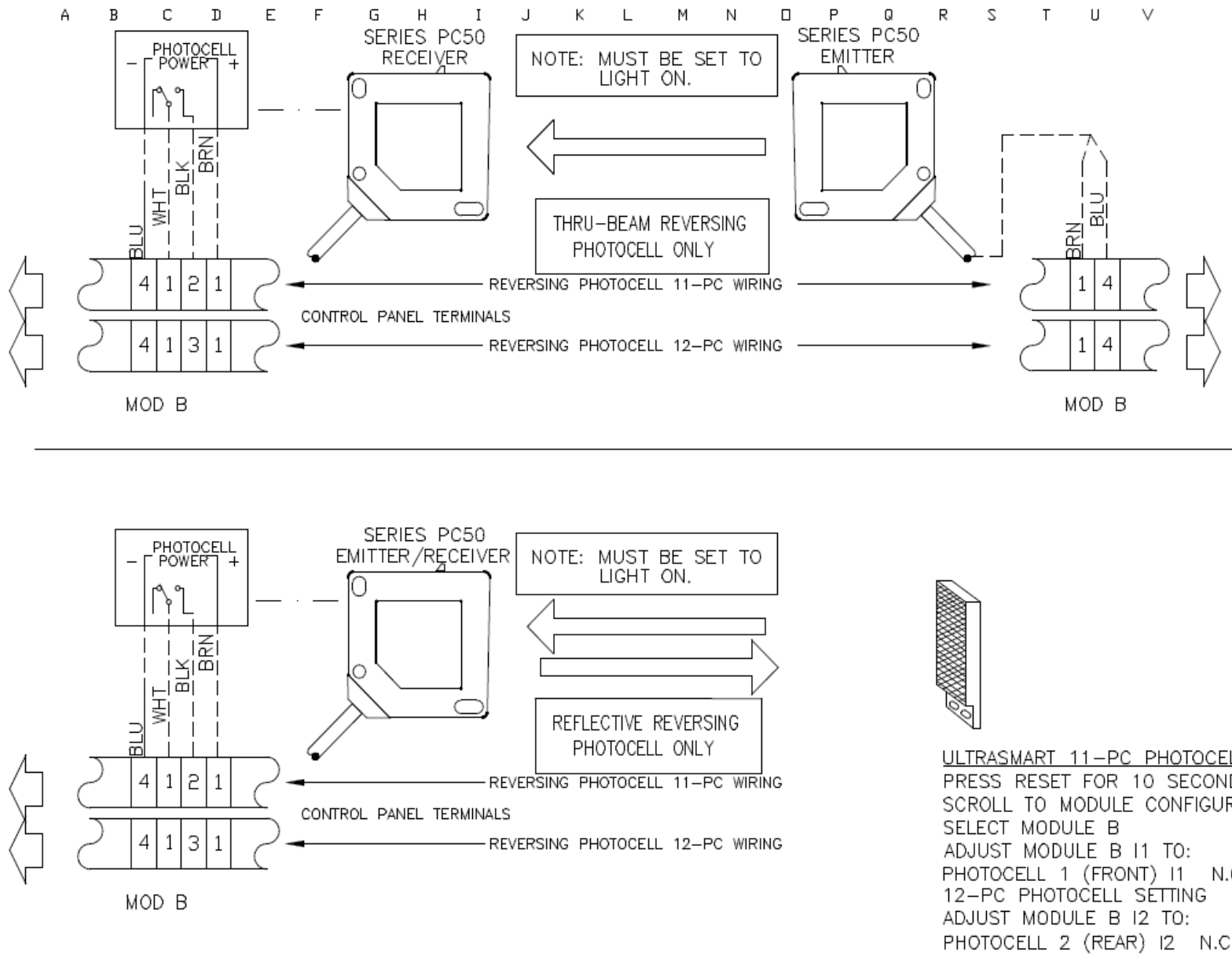

DRIVE UNIT
TOP SIDE OF DISCONNECT
L1 L2 L3
INCOMING 3PH POWER
MG T1 T2 T3
GREEN
RED
WHITE
BLUE
B1 B2
ORANGE
BLACK
1A 1B
WHITE
BLACK
(REMOVE JUMPER BETWEEN 1A & 1B)
SHIELD MUST BE CONNECTED ON CONTROL PANEL AND DRIVE SIDE
1-SPEED MOTOR WIRING
LOCATION= MOTOR TERMINAL BOX
LOCATION= BOTTOM OF MOTOR
F1-THERMAL SWITCH
S10-CRANK SWITCH
RED
BLACK
WHITE
BROWN
BRAKE DC COIL
196VDC
LOCATION= TOP OF GEARBOX
BROWN
BLACK
SHIELD MUST BE CONNECTED ON CONTROL PANEL SIDE ONLY
MODULE C
1 2 3 4 5 6
BLACK
RED
GREEN
WHITE
LOCATION= LIMIT SWITCH COMPARTMENT
GFA OPERATOR ELECTRONIC LIMIT SWITCH
SYMBOLS:
DEVICE WIRING
FIELD DEVICE WIRING
FIELD DEVICE
REV
DESCRIPTION/ PREVIOUS INFORMATION
DATE
INITIAL
BY CJG
DRAWING TYPE WD
DATE 2008/02/20
DESCRIPTION ULTRASMART GFA OPERATOR WIRING 1-SPEED
DRAWING NAME WDU1GFA-007
DRAWING NUMBER 980076-2027

Two Speed Drive Units Only



REV	DESCRIPTION/ PREVIOUS INFORMATION	DATE	INITIAL
1			

BY	CJG
DRAWING TYPE	WD
DATE	2008/02/20
DESCRIPTION	ULTRASMART GFA OPERATOR WIRING 2-SPEED
DRAWING NAME	WDU2GFA-007
DRAWING NUMBER	980076-2028

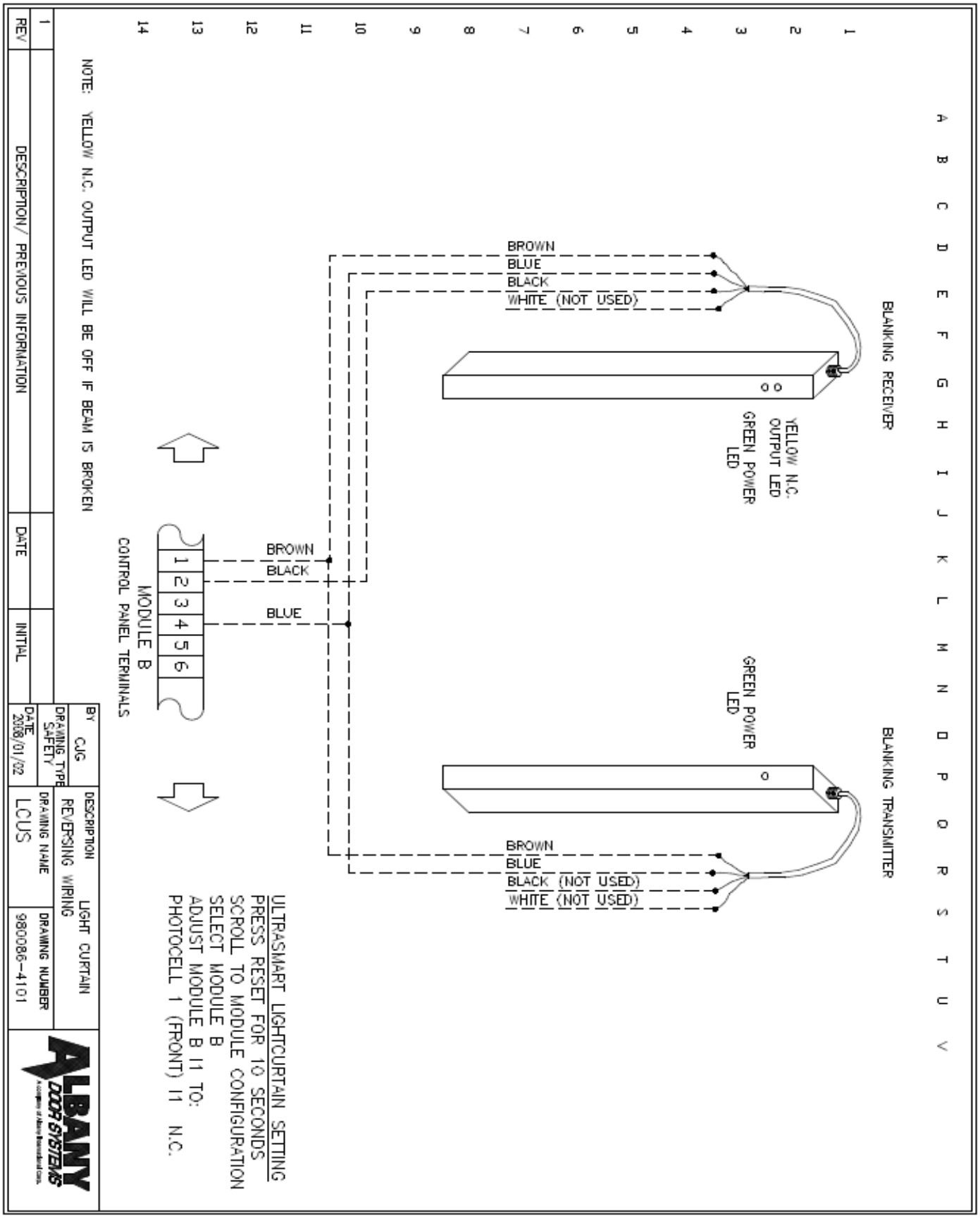


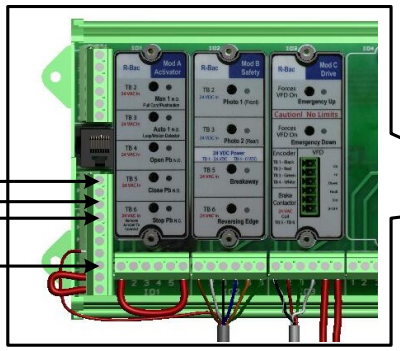
ULTRASMART 11-PC PHOTOCELL SETTING
PRESS RESET FOR 10 SECONDS
SCROLL TO MODULE CONFIGURATION
SELECT MODULE B
ADJUST MODULE B I1 TO:
PHOTOCELL 1 (FRONT) I1 N.C.
12-PC PHOTOCELL SETTING
ADJUST MODULE B I2 TO:
PHOTOCELL 2 (REAR) I2 N.C.

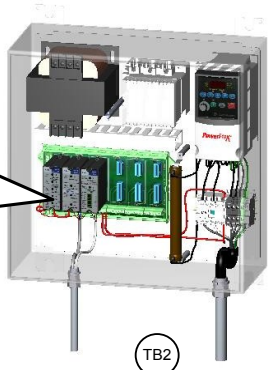
REV	DESCRIPTION/ PREVIOUS INFORMATION	DATE	INITIAL
3			
2			
1	CHANGED BLU to 4 AND BRN TO 1	20091130	CJG

BY CJG
DRAWING TYPE ACTUATOR
DATE 2008/01/28
DESCRIPTION REVERSING PHOTOCELL WIRING, ULTRASMART
DRAWING NAME PCADSUS
DRAWING NUMBER

ALBANY DOOR SYSTEMS
A company of Albany International Corp.

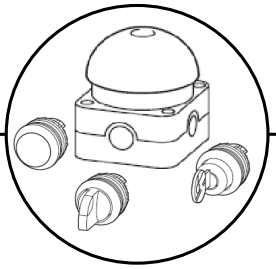

BLANKING RECEIVER
BROWN
BLUE
BLACK
WHITE (NOT USED)
YELLOW N.C. OUTPUT LED
GREEN POWER LED
BLANKING TRANSMITTER
GREEN POWER LED
BROWN
BLUE
BLACK (NOT USED)
WHITE (NOT USED)
BROWN
BLACK
BLUE
1 2 3 4 5 6
MODULE B
CONTROL PANEL TERMINALS
NOTE: YELLOW N.C. OUTPUT LED WILL BE OFF IF BEAM IS BROKEN
ULTRASMART LIGHTCURTAIN SETTING
PRESS RESET FOR 10 SECONDS
SCROLL TO MODULE CONFIGURATION
SELECT MODULE B
ADJUST MODULE B I1 TO:
PHOTOCELL 1 (FRONT) I1 N.C.
REV
DESCRIPTION/ PREVIOUS INFORMATION
DATE
INITIAL
BY CJG
DRAWING TYPE SAFETY
DATE 2008/01/02
DESCRIPTION REVERSING WIRING
DRAWING NAME LCUS
LIGHT CURTAIN
DRAWING NUMBER 980086-4101
ALBANY DOOR SYSTEMS

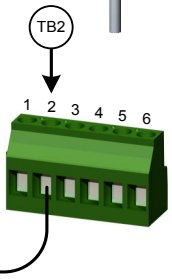




MANUAL ACTIVATORS

CONNECT AS "NORMALLY OPEN"

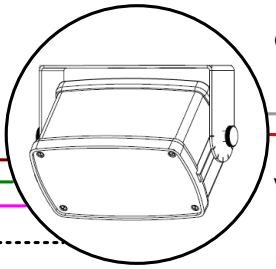


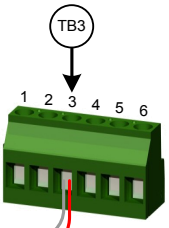


MODULE - A

H

HERKULES™ MOTION SENSOR





Connect GRAY for Person Detection

GRAY

RED

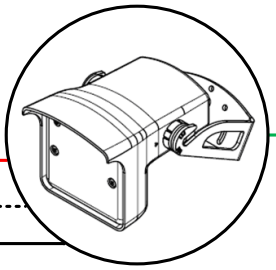
Connect RED for Vehicle Detection

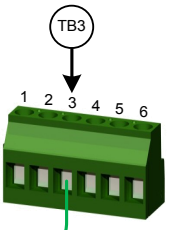
MODULE - A

H — BROWN — GREEN — PINK

N — WHITE

FALCON™ MOTION SENSOR





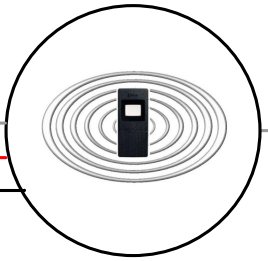
GREEN

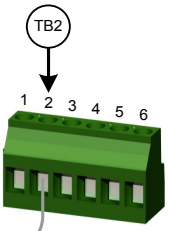
MODULE - A

H — RED — WHITE

N — BLACK

REMOTE CONTROL





GRAY

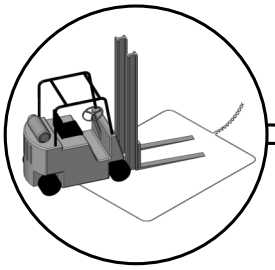
MODULE - A

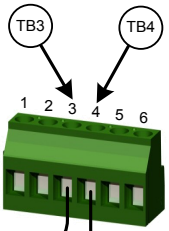
H — GRAY

H — RED

N — BLACK

LOOP DETECTOR



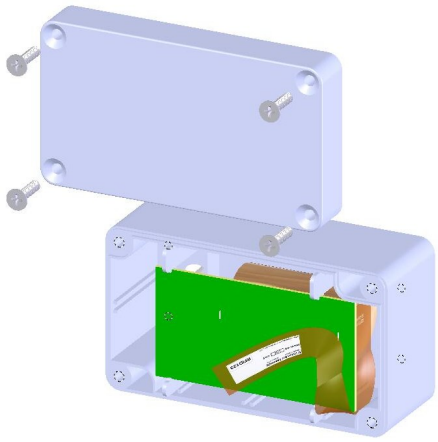


MODULE - D

(optional)

ENABLING THE WIRELESS SAFETY SYSTEM

If the door is equipped with Albany's Wireless Safety System (indicated by the lack of a coil cord), the following steps must be taken to initialize the communications:



1. Locate the RF transceiver on the bottom slat (shown to left)
2. Remove the cover and locate the RFID number on the pull strip.
3. Setup the UltraSmart™ Controller according to the procedure below:
4. Hold the circuit board with one hand and pull out the strip.
5. Replace the cover and 4 screws.
6. Test the system.

UltraSmart™ Controller Settings

Press and hold RESET MENU until "LIMIT SETUP" is shown on the display

Press ▲ until "WIRELESS SETUP" is shown; Press ENTER

Press ▲ until "BOTTOM BAR ID" is shown; Press ENTER

Change the number to the RFID number on the bottom bar label using ▲ and ▼

Press ENTER to store the value and press RESET MENU until "DOOR READY" is displayed

Thoroughly test the system to determine if all sensors/switches are functioning properly. Make sure you can answer "yes" to the following questions:

- Does the door reverse when the reversing edge is tripped upon closing?
- Does the door time out and close after reversing if the timer is set to do so?

If you cannot answer "yes" to all the above questions, check all wiring connections and ensure the RFID is set to the same number that is labeled on the wireless bottom bar module.

UltraSmart™ STARTUP PROCEDURE

Albany's UltraSmart™ control system is designed to accommodate numerous option modules and future technological advances. This manual will address necessary settings for the standard options; however, optional modules and special applications may require additional steps to be taken for proper setup. Refer to the control schematic shipped inside the panel enclo-

SETTING DOOR LIMITS

NOTE: SAFETY DEVICES WILL PREVENT THE DOOR FROM CLOSING IF ACTIVATED DURING SETUP ENABLE THE WIRELESS SYSTEM (IF EQUIPPED) PRIOR TO SETTING DOOR LIMITS

1)Press and hold [RESET MENU] until "LIMIT SETUP" is shown on the display; Press [ENTER]

2)"CLOSED LIMIT" should be displayed; Press [ENTER]

3)Use [JOG UP] and/or [JOG DOWN] to bring the door to the full closed position; Press [ENTER]

4)Press [▲] "FULL OPEN LIMIT" should be displayed; Press [ENTER]

5)Use [JOG UP] and/or [JOG DOWN] to bring the door to the full open position; Press [ENTER]

6)Press [▲] "PARTIAL OPEN LIMIT" should be displayed; Press [ENTER]

7)Use [JOG UP] and/or [JOG DOWN] to bring the door to the partial open position or set the same as the full open position if not used; Press [ENTER]

8)Press [RESET MENU] until "DOOR READY" is displayed

CAUTION **The *Open*, *Partial*, and *Breakaway Limit* are all relative to the *Closed Limit*. If the *Closed Limit* is reset to a different position, all other limit settings**

SETTING SYSTEM OPTIONS

1)Press and hold RESET MENU until "LIMIT SETUP" is shown on the display; Press ENTER

2)Press ▲ until "SYSTEM OPTIONS" is shown; Press ENTER

⇒Use ▲ and/or ▼ to cycle through the available options; Press ENTER to edit that option.

⇒Use ▲ and/or ▼ to change the value; Press ENTER to store that value

3)When finished—press RESET MENU until "DOOR READY" is displayed

Commonly changed SYSTEM OPTIONS include: "RevEdge Auto Close?", "Photoeye Auto Close?", "Panel Open MAN1 Auto Close?"

SETTING TIMERS

1)Press and hold RESET MENU until "LIMIT SETUP" is shown on the display; Press ENTER

2)Press ▲ until "SET TIMERS" is shown; Press ENTER

⇒Use ▲ and/or ▼ to cycle through the available options; Press ENTER to edit an option.

⇒Use ▲ and/or ▼ to change the value; Press ENTER to store that value

3)When finished—press RESET MENU until "DOOR READY" is displayed

Commonly changed TIMERS include: "Close Delay, Auto1", "Door Open Alarm Tmr", "Delay-To-Close Outpt", "Defrost Cycle On", "Defrost Cycle Off"

Installation Checklist

Please fill out below and return to Albany Door Systems

Customer	_____	Installation Date(s):	_____
Location:	_____	Door Serial #(s):	_____
Contact:	_____	Contact Phone #:	_____
Install Company:	_____	Contact & Phone #:	_____

Mechanical Installation (All Doors)	**Yes**	**No**
Is the door secured to the wall using thru-bolts?	_____	_____
If No, what type of anchor was used? _____		
Are the door roll and rear spreader level?	_____	_____
Are the side columns plumb?	_____	_____
Does the door have counterweights?	_____	_____
If Yes, are the straps routed properly?	_____	_____
Is the door caulked or sealed to the wall?	_____	_____
Are there any visible gaps between the door and the wall?	_____	_____
If No, did the customer contact approve of door to wall seal?	_____	_____
Is there any visible damage to the door?	_____	_____
If Yes, what is the damage? _____		
Was Customer Service notified of the damage?	_____	_____
Was the customer contact notified of the damage?	_____	_____

Electrical Installation		Yes	No
Were the factory supplied cables (motor, encoder & 7-wire) long enough?			
If No, which cables were too short?			
If No, was Customer Support contacted and new cables sent?			
Were the schematics easy to read for electrical hook-up?			
What type of conduit was used to route the cables to the door?			
Is the conduit routed to the bottom of the control box?			
If No, did the customer approve this?			
If No, why?			
If Yes, who was the customer contact that approved?			

Door Start-Up	Yes	No
Was the door start-up procedure easy to follow?		
If No, what problem(s) did you run into?		
Was Customer Support notified of these issues?		
Is the Reversing Edge working?		
Are the front and rear light curtains (or photo-eyes) working?		
Do the bottom bar breakaway switches work?		
Does the door's self-repair feature work when the door is broken away?		
If the door has counterweights, does the egress work?		

Activation	**Yes**	**No**
What type of activation is being used?		
Was the activation supplied by Albany Door Systems?		
Did the customer approve of the mounting and operation of the activators?		

Comments

Please email digital pictures of the installed door to: support@albint.com